Principles of Accounting

BY

JOHN RAYMOND WILDMAN, B.Sc., M.C.S., C.P.A.

of the Firm of Haskins and Sells and Professor of Accounting in New York University
School of Commerce, Accounts and Finance

1922

NEW YORK UNIVERSITY BOOK STORE
32 WAVERLY PLACE, NEW YORK

Economics Creed

37c

FOREWORD

Changes in the tax law have rendered obsolete certain chapters and references which appeared in the author's Principles of Accounting as originally published. A revision of the book thus being indicated, advantage has been taken of the opportunity to make certain other changes in the text which experience indicates as being desirable. These have resulted in the elimination of the earlier chapters dealing with the economic aspect of accounting, and in a different treatment of reserves.

The author acknowledges frankly that further investigation of the subject of reserves has developed a better appreciation of the differentiation among them, and such conclusion makes necessary treatment different from that formerly accorded to them.

There has been added in the revised text certain material dealing with the interpretation of financial statements which, while meagre in its scope and somewhat general in discussion, tends to round out the book, and an appendix dealing with the subject of capital stock without par value.

Acknowledgment is gratefully made to Mr. E. Alfred Davies, wherever he may be, last heard from as a sergeant in the Canadian army assigned to duty in Russia, who, when a student at New York University, gave evidence of having read the original text carefully by offering the author a list of typographical errors. Needless to add, these have been corrected in the present edition.

JOHN RAYMOND WILDMAN.

NEW YORK, June 15, 1922.

PREFACE

In presenting this book, the author desires to have understood that it is not a treatise on accountancy. It deals, as the title states, with the principles of accounting.

Accounting may be defined as that science which treats of the systematic compilation and presentation in a comprehensive manner, for administrative purposes, of the facts concerning the financial operations of a business organization.

Accountancy is most aptly defined in the Certified Public Accountant Syllabus issued by the New York Education Department as, "a profession, the members of which, by virtue of their general education and professional training, offer to the community their services in all matters having to do with the recording, verification and presentation of facts involving the acquisition, production, conservation and transfer of values."

Bookkeeping has been defined as, "the art of recording pecuniary transactions in a regular and systematic manner."

From the above definitions it will be seen that there are marked differences between bookkeeping and accounting, and accounting and accountancy. The requirements of a knowledge of bookkeeping are overshadowed by those of accounting. Accountancy is, in turn, much broader in its scope than the latter.

With the ever-present recollection that the subject of this discussion is accounting as a science and not professional accounting, the book should be read.

It has been prepared as a text, constituting the foundation, or framework of the course in Theory of Accounting, as given in New York University School of Commerce, Accounts and Finance. As such it is supplemented by extensive collateral reading, with a view of bringing to the attention of the student the greater detail on many topics, which obviously is impossible in a work of this character, as well as the views of other writers on this and allied subjects.

The subject has herein been approached in a manner different from most books on accounting. The choice of most writers

seems to be the analytical method, beginning with the financial statements as a basis. The present work makes use rather of the synthetical method, with the preparation of financial statements for administrative purposes as the objective. An attempt has been made to tie in the allied subjects, such as economics, law, finance and organization, and to show the relation which accounting bears to these subjects.

The author desires to record his appreciation of the assistance rendered by his friends and associates, William Wallace Douglas and John Thomas Madden, of the accounting faculty of New York University School of Commerce, Accounts and Finance. Both have been patient with his shortcomings and especially helpful with suggestions and constructive criticism.

The author also desires to present the book as a modest and conscientious attempt on his part to gather together for students the principles of accounting rather than a masterpiece born of egotism.

JOHN RAYMOND WILDMAN.

NEW YORK, May 22, 1913.

CONTENTS

Contents

Principles of Accounting

By John R. Wildman

CHAPTER I

THE OBJECT WHICH ACCOUNTING SEEKS TO ACCOMPLISH

The object of accounting is to ascertain, compile, and present in a comprehensive manner, for administrative purposes all the facts concerning financial operations and conditions.

Business men are coming to realize that proper and adequate financial statements are a highly important, if not an indispensable aid, to successful administration.

It is not so long since many concerns used merely a single entry system of keeping their books and depended, so to speak, upon an inventory of assets and liabilities at the end of the year in order to determine their financial condition. From such an inventory there was compiled a list of accounts separated as to assets and liabilities which was called a balance sheet and which showed the surplus or deficit. The profit or loss was determined by a comparison of the surplus or deficit at the end of the period with that at the beginning. All that could be established was the fact that a gain had been made or a loss sustained and the extent in either case. Such information was obviously very meagre.

The question, presumably, which began to arise in the minds of proprietors in case of a gain was, "What was the cause or causes from which the profits have resulted?" With the aid of double entry bookkeeping and the accompanying nominal accounts a profit and loss account became possible. This summary, which was a transcript of the corresponding accounts in the books, was crude at first, and while nothing more than a classified list of debits and credits, did explain in a measure the increase or decrease in the surplus or the deficit.

To the inquisitive proprietor, even of a small concern, such a statement probably proved unsatisfactory. The account might have been called a hodgepodge of information accounting arithmetically for, and to a certain extent explaining in general terms the causes of, profits and lossses, but the business man began to ask for something more definite; something more concrete; some-

thing which would tell him with more precision just why a profit had been made. He was also dissatisfied at having to wait until the end of a year before obtaining this information.

Quite naturally he began to ask, if he happened to be engaged in manufacturing, "How much do I make on my goods without taking into consideration the expenses of selling them, or the expense of conducting the business?" To satisfy this want on the part of the proprietor, the accountant presumably prepared a more elaborate statement of the profit and loss for the period, which divided the total expense of conducting the business into three classes; namely, manufacturing, selling, administrative and general. He arranged to show the profit after each class of expense had been deducted. His statement was in account form and was known as the trading and profit and loss account, or as the manufacturing, trading and profit and loss account. This latter statement probably attained greater popularity than the former. It was divided into three sections, entitled respectively, manufacturing, trading, and profit and loss. The first section had as its object the gathering together of all the items of cost or expense affecting the manufactured goods sold. These, of course, comprised the stock at the beginning of the year, whether in the shape of raw material, goods in process, or finished goods, to which was applied the respective inventories at the end of the period. It also included wages, rent and taxes of factory, depreciation on machinery and all incidental items of expense affecting the manufacturing. When this cost of manufactured goods sold had been ascertained, the section was closed out by being balanced and the balance was brought down to the second section, or that called trading. This section showed on the credit side the sales, and on the debit side the cost of sales plus salesmen's salaries and expenses, together with discounts on sales. It was balanced in a manner similar to the first section, and the balance carried down to the profit and loss group. In this section the gross profit on trading appeared on the credit side and was offset by such items as the rent of warehouse, salaries of clerks, depreciation on factory, office expenses, reserve for bad debts, interest, dividends, etc.

This statement, while quite obviously an improvement over the original profit and loss account, still left something to be desired. While intended to allocate profits to a certain extent, it

possessed to such a degree the features of a ledger account, that it was generally condemned by the proprietor, who as a rule understood little about bookkeeping, as being too intricate for his interpretation. It worked its way into favor with bookkeepers in this country at a time when very little attention had been given by them to financial statements. It is supposed to have come from England, where it originated. It has now been largely discarded in favor of a statement which is known as the statement of income and profit and loss.

This statement presumably came in response to the persistent demands on the part of the proprietor for financial statements which would be of use to him in running his business, so to speak. Many such men have been heard to say, "What I want is a statement which I can understand and which will help me to run my business and make more money." "What I want is an income statement which will tell me whether I am making money through proper and consistent manufacturing cost, or whether I am losing money because my selling or administrative expense or my fixed charges or any one of them is too high. If I lose money, I want to know whether my selling price is too low or my cost and expense items too high, and above all, I want a statement which I can understand. I know nothing of bookkeeping or accounting, and I do not wish to be bothered with highly technical and involved statements."

The statement of income and profit and loss is the latest device for supplying the wants of the business man with information as to his operations. While it has developed into a somewhat elaborate statement, it is so arranged as to present to the business man in a simple and logical manner that which he desires. It does away with all bookkeeping features; there is no such thing as debts and credits. It deducts one item from another in the same way that the layman would do it, "if he were figuring up his profits." It seems to appeal to him and be possible of interpretation by him for this reason. It is constructed in accordance with the divisions of organization. It sets out clearly the cost incident to manufacturing, selling and administration. It separates from these departments, which comprise the operations, all such items as secondary income or deductions therefrom. It complies with the economic theories with regard to interest, rent, taxes, etc. It allocates the profits to the respective division of

organization showing gross profit, selling profit and net profit. It shows the income from operations and the income from sources other than operations. It gives the business man a statement from which to form his judgments and to administer.

The balance sheet of to-day has also undergone some remarkable changes. From an intricate mixture of accounts, classified only as to debit and credit, it has become a statement of great refinement, showing not only the true financial condition but carrying with it information which is of inestimable value to the proprietor or administrative officer. It now enables him to determine the manner in which his capital is invested; the extent to which his equity in the organization exists; to separate his fixed capital from his working capital; to determine which assets have an intrinsic value and those which are carried merely as a matter of courtesy for accounting purposes.

The fact that scientifically prepared financial statements are desirable and, in fact, needed by the business man who hopes to become successful would appear to pass unchallenged. That great corporations are in effect magnified individuals, the power of observation of whose officers is limited, will also probably be unquestioned. That such officers must have some artificial means of transcending such limits is also quite evident. Financial statements, with their accompanying statistical data, furnish such a means.

The duty which confronts the accountant is that of presenting such financial statements and presenting them when needed. Some concerns require statements showing daily profits, others what might be termed perpetual balance sheets, while the great majority probably close their books either semi-annually, quarterly or monthly. These statements will not prepare themselves. They will not permit of successful preparation unless some arrangement has been made to secure the facts and figures essential to their preparation. In order that this may be accomplished it is necessary that the accountant should thoroughly understand books, the object in keeping them, their classification, their form and ruling; methods of bookkeeping; of accounts, their philosophy, classification, and arrangement in books; the relation which each account bears to allied subjects, such as economics, law and finance; the peculiar effect which the various economic and legal

types of organization and various lines of business have upon the accounts and the accounting technique.

The accountant having in mind the results which he wishes to attain, plans his work accordingly. He begins with the selection of proper books. He proceeds by choosing such accounts as will, when properly arranged, reveal, in accordance with economic principles, a complete record of the financial transactions of the particular type of organization involved and facilitate the preparation of comprehensive financial statements. Not alone arithmetical statements which are mathematically correct and accurate with regard to the facts, but statements which set forth such facts in a manner which can be readily understood. A balance sheet may set forth all the real accounts. It may show the financial condition of the organization. An income statement may disclose all the nominal accounts and show the results of operation during the period just past. If the arrangement is disregarded, the statements will have little meaning. Properly arranged, they may be of immense value to the proprietor or administrative officer. They may show not only the financial condition and the results of operation in the past, but light the way to improvement in the future. A properly constructed balance sheet may be a most important factor in guiding the financial policies. A statement of income and profit and loss, wherein items of cost are grouped around units of production and items of expense around units of service, may be most helpful as an index to efficiency and honesty or as a warning of weakness or impending danger. To discuss the elements necessary to the preparation of comprehensive financial statements will be the purpose of the following chapters.

REFERENCE FOR COLLATERAL READING:

Business Education and Accountancy, Haskins, Chapters I, II, V, VI.

CHAPTER II

ACCOUNTS: CLASSIFICATION

The kinds of accounts to be kept depend upon the information desired. The primary demand is for information concerning the financial condition. The secondary demand is for information as to how the financial condition was brought about.

Financial condition is shown by gathering together all values of a positive character and opposing against them all values of a negative character. The difference resulting is expressed in an account called "capital" or "proprietorship."

Financial condition is constantly changing. Scarcely a sale of goods takes place which does not effect such a change. It usually consists in substituting in place of goods on hand for sale, carried at cost, an account due from a customer, the amount of which includes in addition to the cost of the goods sold, an item of profit. Any change in the values reflecting financial condition changes the capital. A comparison of capital at two dates determines the extent of its growth or shrinkage during the period intervening. It shows the effect of having engaged in a financial undertaking. It does not show the cause of the change in capital. Whether the effect be pleasing or otherwise, curiosity might be assigned as a reason for demanding information concerning the cause of the change. As a matter of fact the reason is a far more logical one. Men have found that by getting information as to what has happened in the past they are in a better position to direct the affairs of the future.

In order to be able to express the financial condition at the proper time, it is only necessary to have accounts, the titles of which will describe individually the various values which reflect financial condition.

To trace the steps in the ever-changing financial condition is a more difficult matter. Every change alters the proprietor's or capital account. Such changes may be due to one or more of several causes; the result of operating, or the active employment of the capital; fluctuations in values due to economic conditions; a decrease in certain material values owing to lapse of time. To record every change in the proprietor's account would be an arduous task. In order that this may be avoided it has been

found desirable, to substitute and use in place of the capital account, during the time which the account period covers, a series of accounts which will record, in a classified manner, the changes taking place in the capital account. When they have done this, they have served their purpose and they are closed, at the end of the accounting period, into a summary, the net result shown therein being subsequently closed into the proprietor's account.

Having in mind the above remarks it may be said that accounts divide into two great kinds, or classes, namely,

real, and
nominal

definitions for which may now be constructed without any particular difficulty.

Real accounts are those which reflect financial condition.

Nominal accounts are those which reflect changes in financial condition.

It is not to be thought strange if the mind of the attentive student seeks information as to the reason for selecting the words real and nominal to describe two classes of accounts of such importance. Authority for the use of the words is difficult to find but it is probable that they were selected because of the fact that accounts showing the financial condition represent values which really and definitely exist, whereas those accounts which record the changes merely mark the course of the changes. The latter are accounts which exist in name only so far as representing anything concrete is concerned.

Whether real accounts show the financial relations of the proprietor with persons as distinguished from things would seem to be of little importance; however, in passing it is to be noted that some authors do take considerable cognizance of a classification which divides accounts into personal and impersonal. If definitions of these terms were required it might be said, although with some absurdity, that a personal account is a real account purporting to reflect the financial relation existing between the proprietor and some person, whereas an impersonal account purports to reflect the financial relation existing between the proprietor and some thing.

Attention should be directed to the fact that nominal accounts are frequently known by other names. They are sometimes re-

ferred to as, economic accounts, income and expense accounts, revenue and expense accounts, profit and loss accounts, income and outgo, etc.

Real accounts divide into two classes: those which represent positive values and those which represent negative values. The accounts in the former class are called assets; in the latter, liabilities. An asset is a possession of positive value. An asset account may be defined as one which represents an asset. An asset may be tangible or intangible. Some assets are in the form of property or funds. They are said to be tangible assets. Other assets exist in the form of rights against persons, which persons may be either real or artificial. Such assets are said to be intangible. Assets may also take the form of deferred charges to income. They are, in truth, expenses, but in view of the fact that the accounting period to which they are applicable has not yet arrived, they are considered as in the light of having value, which value is positive in its nature and they are consequently entitled to inclusion among the assets.

A liability denotes negative value. It is an offset to values possessed. It is something which must ordinarily be made good out of the assets. Further than that, it is something which the proprietor of a business, if the assets of the business are insufficient, must settle out of private funds. It is something which gives a right of action at law in favor of the creditor as against the proprietor. A liability may be defined as an indebtedness giving to the creditor a right of action at law against the debtor. A liability account may be defined as one which sets forth a liability.

A liability should be distinguished from an accountability in that an account must be stated and the amount definitely ascertained before a liability arises. Accountability is perhaps best illustrated by showing its application in agency. An agent is the representative of his principal. He may have received from the principal certain values for which he must account. He may become liable to his principal, ultimately, but technically he is not liable until such time as he has accounted to his principal for the values received and the disposition made of same. An accountability may be defined as that condition existing, where in the relation between two parties, or entities, one must account to the other for values received.

REFERENCE FOR COLLATERAL READING:

Philosophy of Accounts, Sprague, Chapters IV, VII.

CHAPTER III

ASSETS AND LIABILITIES CLASSIFIED

Assets may be divided into five general groups, namely, fixed or capital assets, working and trading assets, current assets, miscellaneous or special assets and deferred charges to expense.

Fixed or capital assets are those which represent that portion of the capital of the organization invested in assets which are more stable in their nature; those which tend toward permanency in their character. Among this group will be found, property and plant, composed of real estate (technically representing land but more commonly found to include both land and buildings), and equipment (including machinery, tools, power plant and other operating or auxiliary equipment). Other items in the group are furniture and fixtures, outside investments, comprised of stocks and bonds of other companies, and bonds and mortgages of other companies or individuals.

Working and trading assets are those which represent that portion of the capital which is invested in assets, (*a*) available for use in creating the product, or service, which the organization offers for sale, (*b*) involved in the process of creating the product, or (*c*) in product completed and ready for sale. This group is usually represented by inventories, and includes materials and supplies, goods in process of manufacture and finished goods; also items incidental to the operation or conduct of the business, such as the inventories of coal, oil, and waste, stationery, postage, etc.

Current assets are those which represent that portion of the capital which is invested in assets maturing within a short time; those which may be realized upon readily or converted into cash; those which are available for the liquidation of current liabilities. They include, cash in hand, deposits, working funds, accounts receivable, notes receivable, and interest which has accrued. They are sometimes called "liquid" assets.

Special or miscellaneous assets, as a group, are difficult to define on account of their varied natures. Certain of them may represent investment of capital. Some of them may represent

reserves or surplus. In some instances the accounts may be balanced by offsetting accounts reflecting direct liabilities or contingent liabilities; in others, the account may be maintained as a memorandum, in order that certain things may not be lost sight of, and be balanced by an offsetting account for the purpose of maintaining equilibrium. This group comprises, patents, copyrights, trademarks, good-will, sinking funds, leaseholds, contract rights, franchises, treasury stock, notes receivable discounted, and consignments received. Such items as patents, copyrights, trademarks, good-will, leaseholds and franchises might represent investments of capital. On the other hand some of them might be acquired by gift or by accumulation, in which cases they would probably be offset by reserves or surplus. Sinking funds are usually set aside to provide for the liquidation of some liability and would constitute a setting aside of capital unless the funds were offset by a reserve accumulated out of profits. Notes receivable discounted would be offset by an account merely for the purpose of maintaining an equilibrium.

Deferred charges to expense, constituting the last group, may be defined as investments of capital in items of expense not applicable to the accounting, or fiscal, period in which they originate, the charge to expense for which is deferred to a subsequent period. They are sometimes called "assets by courtesy." They embrace all prepaid expenses, prominent among which are, insurance, taxes, rent, advertising, organization expense, moving expense, etc.

Liabilities may be divided into four general groups: capital liabilities, current liabilities, special liabilities, and deferred credits to income. Reserves are sometimes classified as liabilities, but it would appear to be more nearly correct to consider them as a portion of the capital or proprietorship, which has been set aside for specific purposes, and they will be so considered and treated in this discussion.

Capital liabilities are those which arise in connection with capital obtained for investment in the business. If specific at all with regard to their maturity, they are usually obligations, the term of which extends over a period of years. They are usually of such a nature, that they do not become due until the date specified for their maturity, except by special provision in the instrument whereby they are represented. When such provision

exists, it is usually in the form of a right accruing to the holder of the obligation, by virtue of which he may enforce collection if interest on the obligation is not paid when due. Among capital liabilities are found, bonds, debentures, long-term notes, etc.

Current liabilities are those which mature within a short time. They are those for which funds must be obtained to provide for their liquidation. They are the obligations incurred in connection with operating expenses, the securing of materials and supplies, the purchase of trading goods, or obtaining of current funds. They are the constantly maturing obligations which must be met out of the realization of current assets. They include such items as taxes accrued, wages accrued, accounts payable, notes payable, interest accrued, dividends payable.

Special liabilities are perhaps not liabilities in a strict sense of the word. Accounts for them are, however, frequently found in the books and they should not be passed over without explanation. They frequently represent a condition of accountability, rather than liability, and in some cases where a liability might be expected to exist it is contingent upon the realization of some existing asset. Prominent in this group are consigned sales and notes receivable discounted. In some instances it is also made to include an account with consignors for goods received on consignment.

Deferred credits to income, represent income which has been received in a period prior to that to which it is applicable. In cases of this kind payment has usually been received in advance on account of right, services, or goods which will not be delivered until some subsequent period. They are sometimes referred to as deferred liabilities and include such items as rents and royalties, etc., received in advance.

Reserves are to be considered as capital, set aside for specific purposes, rather than direct liabilities. If it is true, that capital or proprietorship is an accountability, rather than a liability, it is probably also true that reserves are accountabilities, rather than liabilities.

Proprietorship is that financial investment which is represented by the excess of assets over liabilities. It may be expressed in several ways, depending upon the type of organization. It may be restricted or unrestricted. It may be restricted, in that it is set aside as a reserve for the purpose of providing for the

depreciation of some of the physical assets, or a possible loss through failure to collect outstanding accounts. As unrestricted, it may appear as capital of the proprietor, or in the case of a corporation, as capital stock, undistributed profits, or surplus. As capital stock it may be either common or preferred. It may also be represented by temporary evidence of its existence in the form of scrip.

It would appear to be appropriate at this time to discuss a question with regard to proprietorship upon which there is some difference of opinion among accountants. The subject for discussion may be presented in the form of the question "Is proprietorship a liability?" The arguments for and against, considering proprietorship as a liability, will also bring out the reason why English accountants place liabilities on the left hand side of the balance sheet, rather than upon the right hand side, as is the custom in this country. Whether or not proprietorship is a liability depends entirely upon the viewpoint of the accountant. It depends upon whether or not there is a distinction made between the financial status of an individual, as an individual and a business entity. In other words, when John Jones engages in business, the question to be decided is, shall he be regarded as an individual who has invested money in a business organization and which organization is indebted to him for the funds so invested, or as the organization itself? In order to make the situation conform to the first suggestion it is necessary to raise a theoretical entity in the form of John Jones, Proprietor, which is indebted to John Jones, Individual, for funds invested. Under such circumstances and with the creation of such theoretical entity, it would be quite proper to consider the account of John Jones, Proprietor, as a liability, were it not for the fact that the law does not recognize such a distinction. If perchance the assets of John Jones, Proprietor, are insufficient to liquidate the liabilities of John Jones, Proprietor, the law permits any assets of John Jones, Individual, to be appropriated by due process of law and applied to the liquidation of outstanding liabilities of the business.

Looking at it from the other point of view, there is no distinction made between John Jones, Individual, and John Jones, Proprietor. John Jones is the business; whatever assets the business may have are his. Whatever liabilities exist he must liq-

uidate. The excess of assets over liabilities constitutes his equity in the organization, or the extent of his proprietary interest; it is his capital. What he possesses he cannot very well be liable to himself for. He cannot sue himself for the capital which he has invested in the business. Upon such grounds it would appear to be more reasonable and logical to consider proprietorship as an accountability rather than a liability. The positive and negative forces of his business organization account for his financial condition. While he is able to determine his financial condition through having his account stated, there is no liability. He cannot enforce collection. If he desires to obtain the funds, or the capital, invested in the business he is forced to wind up his affairs as a proprietor either through realization and liquidation of the concern, or a sale to other interests.

It was probably from the first interpretation of organization above stated that the English placed liabilities on the left hand side and assets on the right hand side of the balance sheet. It has been said that while this is required by law that it was due to ignorance of accounting on the part of the framers of the law that such provision was made. This may, or may not have been the case, but at all events such has become an established practice with the English accountants. The business is considered as a distinct entity, liable to the proprietor, for the excess of assets over liabilities in favor of other creditors.

REFERENCES FOR COLLATERAL READING:

Accounting Practice and Procedure, Dickinson, Chapter II.
Philosophy of Accounts, Sprague, Chapter XI.
Modern Accounting, Hatfield, Chapter III.

CHAPTER IV

NOMINAL ACCOUNTS CLASSIFIED

In connection with nominal accounts it will be remembered that they were defined as those accounts which reflect changes in financial condition. The elements of financial condition are assets and liabilities. Nominal accounts reflect changes in either assets or liabilities. Assets like liabilities may either increase or decrease.

An increase in an asset, without a corresponding increase in a liability, or a decrease in a liability, without a corresponding decrease in an asset, increases capital.

A decrease in an asset, without a corresponding decrease in a liability, or an increase in a liability without a corresponding increase in an asset, decreases capital.

The increase of capital is called profit. The decrease of capital is called loss. Profit may be the result of actively employing the assets in the business enterprise, or it may result from an increase in value, due to economic conditions and subsequent sale of the asset. That class of profit which results from the employment, with the object of direct or specific return, of the assets in the business enterprise is distinguished from the rest by being called income.

Income may be defined as the increase in capital resulting from its employment in a business enterprise or other investment. It is sometimes called revenue and earnings. The capital may be either actively or passively employed. Capital invested in goods, sold at a price which is an increase over what the goods cost, for the purpose of profit, is an example of the active employment of capital. Capital invested in securities for purposes of income is a passive employment of capital.

A business organization usually engages in some particular line of business. The efforts of the organization are devoted to the securing of income in that particular line; from the sale of goods; the sale of services; the use of property; or combinations in part or whole of these. It is for the income from these that operations are conducted. This income is the principal or primary income of the organization. It is called the income from

operations. It is the income which arises from the assets actively employed in the business. A concern employing its capital in buying and selling goods, derives its principal income from trading. Incidentally some capital in the form of cash may not be constantly required for use and is allowed to remain on deposit with some bank. The interest which the bank pays for use of such money does not result from operations. It is income but it does not come from trading. No more does interest on funds, which have been invested in securities because the return therefrom might be greater than if such funds were invested in goods, come from trading. The hypothetical organization under discussion is not in the business of loaning money. It has earned certain income from the employment of surplus funds in a manner other than that embraced in the operations of the principal business in which it is engaged. Such income is distinguished from the principal income by being called secondary income, or income from sources other than operation. The two combined constitute the income of the organization, or the net income from all sources.

The decrease in capital is called loss. Loss may be of a permanent or a temporary nature. The decline in the value of an asset due to economic conditions, from which it does not recover; its becoming unsuited to the requirements of the business, or its deterioration owing to lapse of time, may all cause a permanent loss. The decrease of certain assets, or the incurring of a liability, both of which have the same effect upon capital, may result in a temporary loss which presumably will be restored by the income from operations for which the loss was sustained. Temporary losses are distinguished from permanent ones by being called expense.

Expense may be defined as that temporary decrease in capital which has as its object the increase of capital through income. Expense is sometimes called outgo.

Expense may be divided into that which pertains specifically to operations and that which is of the organization as a whole. That in the first group, is called operating expense or expense of operation; that in the second, on account of being an expense applicable to the business as a whole is called an income charge, or a deduction from income. The operating expense may be further divided. It falls naturally into three classes; the direct

expense of securing the goods, services, or maintaining the property which produces the income; the expense of obtaining the business or selling the product; and the expense of administration. The so-called deductions from income embrace expenses as a rule in connection with capital, either the expense of securing it, or protecting it, such as interest, rent, taxes, insurance, etc.

From the foregoing, we may classify nominal accounts as follows:

(*a*) Profits (Increases of Capital).
- (1) Income.
  - (*a*) Primary (from operations).
  - (*b*) Secondary (from sources other than operation).
- (2) Miscellaneous.

(*b*) Losses (Decreases of Capital).
- (1) Expense.
  - (*a*) Operation.
    - (1) Prime.
    - (2) Selling.
    - (3) Administration.
  - (*b*) Capital (other than expense of operation).
- (2) Miscellaneous.

It is of course impossible to attempt a detailed classification of nominal accounts which will be completely exhaustive. What may be done is to give a classification as adapted to a typical manufacturing and selling organization, including all the accounts which might ordinarily appear therein. Such an organization may well be selected, since the accounts involved include a wide range. Where accounts are met with which differ in name from those appearing in the classification presented, it would seem only to be necessary to determine the real meaning of the account in question and classify it by means of comparison with other accounts, similar in their purpose and about the names of which there is no question.

The following presents a detailed analysis of the nominal accounts as used in an extensive manufacturing and selling concern, and is offered principally for the purpose of bringing out clearly the main divisions, or sources of profits and losses:

	Debits	Credits
Income from Sales (Primary Income)	Sales returns Trade discounts Allowances: Defective goods Breakage Damage Loss Rebates Outward freight Outward cartage (prcportion of stable expense) Miscellaneous items	Gross sales
Income from Other Sources (Secondary Income)		Interest on bonds owned Dividends on stocks owned Interest on bond and mortgage receivable Cash discount on purchases Interest on bank balances Interest on accounts receivable Interest on notes receivable Rent (receivable) Royalties (receivable) Commission (receivable) Consideration for endorsing notes Accumulation of discount on bonds
Miscellaneous Profits		Sales of Land or buildings Machinery or tools Horses, wagons or harness Furniture or fixtures Securities Materials and supplies Amounts previously written off — now collected Appreciation of land Appreciation of securities

	Debits	Credits
Expense of Operation (Prime) (Cost of Sales)	Materials and supplies Gross purchases Inward freight Inward cartage (proportion of stable expense) Salaries and expenses—Purchasing department Labor—Direct Labor—Indirect Foremen Laborers and helpers Factory expense Superintendence Clerks (keeping factory records) Factory office expense Heat, light and power Factory supplies Repairs and renewals of shop tools and minor equipment Depreciation of machinery and other major equipment	Purchase returns Trade discounts Allowances Rebates
Expense of Operation (Selling)	Sales department expenses Salary sales manager Salaries of clerks Office expenses Salesmen Salaries Traveling Commissions Advertising Entertaining customers	
Expense of Operation (Administration)	Salaries of officers Salaries of clerks (keeping general records) Directors' fees Printing and stationery Postage Telephone and telegraph Traveling—officers and clerks Legal expenses Miscellaneous office expenses	
Expenses Other than those of Operation (Capital Expenses)	Interest on bond and mortgage payable Interest on debentures or income bonds Interest on accounts payable Interest on notes payable Interest on loans payable Cash discount on sales Rent (payable) Insurance expense Taxes Interest on capital Royalties (payable)	

	Debits	Credits
Miscellaneous Losses	Sales of Land or buildings Machinery or tools Horses, wagons or harness Furniture or fixtures Securities Materials and supplies Provision for doubtful accounts Depreciation of buildings Amortization of patents, trademarks or goodwill Organization Expense—written off	

Dividends have not been included in the above for specific reason. They are analogous to the distribution of profits in a sole-proprietorship or copartnership.

If a proprietor withdraws $10,000 from his business, it is true the amount has been lost so far as the business is concerned. The capital has been accordingly reduced. We should not, however, consider it as a loss to the business, if at the same time of the withdrawal, it had been determined that the profits for the year were $12,000. We should look upon the withdrawal as the distribution of profit rather than a loss. So should dividends be regarded as a distribution of profit, rather than a loss, since they will not be distributed as such unless a profit has resulted from the business operations.

REFERENCES FOR COLLATERAL READING:

Philosophy of Accounts, Sprague, Chapters XII-XIV.
Accounting Practice and Procedure, Dickinson, Chapter III.
Modern Accounting, Hatfield, Chapter XV.

CHAPTER V

SPECIAL FUNCTIONS OF CERTAIN ACCOUNTS

While most accounts are kept for the purpose of classifying the records of financial transactions, there are certain classes of accounts which are sort of supplementary or secondary in their purpose and certain classes of accounts which have functions added to those which they originally had.

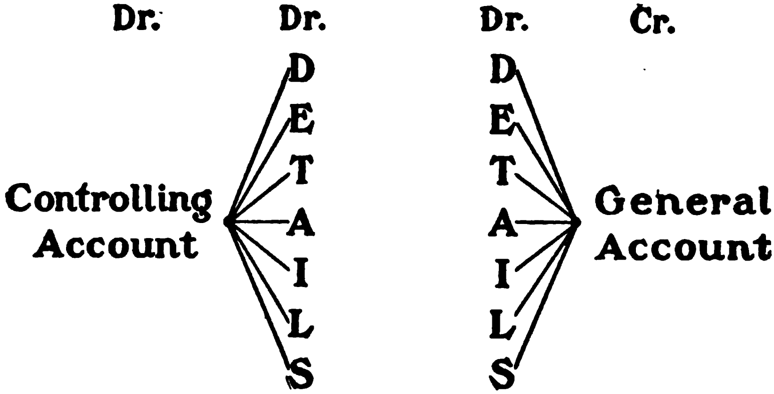
In the first class are included group accounts, summary accounts, statistical or administrative accounts, and general accounts. In the second class the most striking example is the controlling account.

A group account is one into which a number of detail accounts are closed for the purpose of determining the status of a general factor in the economic result. For example: profit and loss shows the economic result. The general factors bearing upon the result are, income from sales, cost of sales, selling expense, administrative expense, etc. The account—income from sales—is made up of various detail accounts of which there are gross sales on the credit side, and the returns together with the deductions from sales on the debit side.

A summary account, as its name implies, summarizes a series of accounts of a general nature and shows the net result in totals of the field of accounts which it covers. The profit and loss account, as above mentioned, illustrates a summary account, showing after it has been closed, on the credit side, income from sales, income from sources other than sales, and miscellaneous profits, and on the debit side cost of sales, selling expense, administrative expense, deductions from income, miscellaneous losses and withdrawals or dividends.

A statistical, or administrative account, is a group account which gathers together the information necessary to exhibit a specific result following certain transactions. Examples of this are a manufacturing account, a trading account, a contract account, showing the gain or loss on a certain contract, etc.

A general account is a bookkeeping device for balancing a number of detail accounts. It is always of an opposing tendency to the detail accounts. The keeper of a customers' ledger, in which case the aggregate of the detail accounts would be of a debit nature, might keep his ledger in balance by running in the back of the book a general account, wherein he would post as a credit, the total of a number of debits which he had posted in detail to the individual customers' accounts and vice versa. In so far as the items which have been furnished him are concerned, he would have no occasion to consult the controlling account in the general ledger, in order to determine whether or not his ledger was in balance.



The accounts receivable account is a real account, which is an asset. It shows the amount due from customers presumably. It is quite customary for this account to have an added function, namely, that of a controlling account.

A controlling account is an account appearing in the general ledger, which reflects, in total, the condition of two or more detail accounts, of the same tendency as the controlling account. It is to be distinguished from a general account in that while it shows the same mathematical result the result is of an opposite tendency.

The prime object of a controlling account is conciseness. It is not always convenient to wait for a large number of individual accounts to be balanced in order that the result with regard to these accounts as a whole may be known. It is frequently necessary to close the general books and prepare the

financial statements before the detail work of posting the underlying ledgers is completed.

In addition to conciseness, the controlling account offers an opportunity for a division of the bookkeeping work and gives the general bookkeeper at the same time an opportunity to control the detail work which he assigns to his assistants. What he does in total they are obliged to do in detail. When he makes a charge to the controlling account for sales to customers they are required to make the charges to the individual customers' accounts. When, at the end of the month, he makes a total credit from the cash book of remittances from customers, and the other necessary entries for returns, allowances, etc., he is enabled, as soon as trial balances of the customers' ledgers are submitted to him, to tell whether or not the assistant is doing his work faithfully and from the standpoint of mathematical results correctly. A controlling account will not prevent a bookkeeper from posting an item to a wrong account any more than systems of bookkeeping will prevent dishonesty. Neither will the controlling account discover such mistakes. It does assist in the discovery of mathematical errors, however, by offering an opportunity for the localization of the error.

As to the order in which accounts should be arranged in the general ledger, apparently, just a word is necessary. If it is definitely known that the information as to financial transactions is to be set forth in certain financial statements and that in order to convey the information intelligently and in the manner which will be most useful to the person to whom it is furnished, then it would seem that some provision should be made for getting at this information with the least possible effort. Planning is one of the essential elements of scientific management. Planning should be one of the most essential elements of scientific accounting. Columnar books were the improved machinery which made the classification of transactions possible and prevented tiresome and time-consuming analysis necessary. The proper arrangement of the accounts in the general ledger will do wonders toward facilitating the preparation of financial statements. In a word or two the rule may be thus stated: as far as possible, observe the same order of arrangement in the general ledger as that in which the results shown by the accounts will appear in the financial statements.

CHAPTER VI

THE PROPERTY ACCOUNTS

Among the accounts prominent in all lines of business are the so-called "property accounts." This has become a common term, although it is probably to be criticized in that it is not sufficiently specific. It includes, as a rule, land, buildings and equipment. It is too frequently confused by being called real estate, real property, property and plant, etc. These terms while not so bad perhaps when used as general descriptive titles in financial statements have no place in the books as account titles. An abundance of accounts is preferable to a scarcity. Not much time is gained by economizing in the number of accounts and much time and useful information is many times subsequently lost by this procedure. It is easier to combine than to separate. Combination is the rule in financial statements because of their general nature. Division should be the rule as to the means of securing the information.

Thus it is proposed in the discussion of property accounts to look at the items which may unquestionably come under property and take up one by one the accounts representing these items.

An analysis of the possibilities which the word embraces would include in general terms land, buildings, machinery, tools, equipment, horses, wagons and harness, automobiles, and furniture and fixtures.

Land is sometimes referred to as real property. Real property is a technical legal word. "Property is the right to possess and use." "Real property is the right to possess and use land" for an indefinite period of time. Land is also sometimes referred to as real estate, but this term like so many others applied to land and buildings is confusing, for the reason, that the term real estate is also used to designate a business, the object of which is to deal in real property and those chattel interests which attach to real property such as leases and leasing, mortgages and liens. All confusion may be avoided by not using any of these terms and merely referring to land as such.

Since accounting follows bookkeeping and bookkeeping fol-

lows the business transactions, it will no doubt be of interest in discussing the account for land and the manner in which the account is manipulated, to examine the subject of the account with regard to—how it may be acquired, either permanently and temporarily, what may happen to it, and how it may be disposed of.

Land may be acquired by inheritance, purchase or gift. In some cases it may be improved by reclaiming or draining, and in others by filling in or making new land. It will probably be seen immediately that all of these possibilities might exist and that all have a distinct bearing upon the accounting. In any case the permanent acquisition of land is accompanied by a deed which vests title in the holder thereof. Land acquired by gift or inheritance has a very different effect upon the accounts from that which is purchased, made or reclaimed. Land which is purchased will be acquired either for cash or through credit. The credit may take the form of an open account or may be represented by a mortgage. The purchaser may take the land subject to the mortgage or he may assume the mortgage. Where land is made or reclaimed there are certain expenses incident to its improvement which may add to the first cost or perhaps the entire cost. In just these few simple statements the acquisition of land has brought sharply to the attention the fact that it is closely related to bookkeeping, accounting, law and finance.

The holder of land is brought into direct contact with the government through its ownership. The government affords police protection to its citizens and in return exacts a tax for such service and the general maintenance of the government. Taxes will be treated at length in another chapter. In addition to the right to taxation which the state claims, there is what is known as the right of eminent domain. This is the right to confiscate any property which may be needed for the common good. Included under such necessities, are thoroughfares, projected railroad lines, and street car systems. While such proceedings are possible under the right granted him by the constitution of the United States, the holder must be given an opportunity to be heard and he must be paid a fair compensation for his land.

In the absence of ownership, land may be hired or it may be leased. The distinction between hiring and leasing seems to be, that hiring implies as a rule a verbal contract from month to

month, or from one short period of time to another; whereas leasing carries with it a written contract with certain express and implied conditions and usually covers a longer period of time; for example, a year, five years or ten years.

At first thought, it would not seem that much of consequence could happen to land. Upon further investigation it will be quite plain that economic conditions may have a very great effect upon land. A given locality, perfectly adapted to certain lines of business to-day, may within ten years be entirely unsuited to the needs of the same line of business. Land which is of no particular value to-day may within the same period of time become exceedingly high in price owing to the demand. Thus, land may either appreciate or depreciate in value. If the owner of the land does not pay his taxes or his other obligations, the state may impose a lien, or the courts may take similar action in favor of some judgment creditor. The holder of a mortgage may foreclose and take title.

Land may be a direct factor in the production of income or it may be an indirect factor. As the part of the property of a business organization it is an indirect factor in the production of income in the form of profits. Remembering that land includes not only the surface, but the natural resources above and below the surface, it may be a direct factor in the production of income in the case of mining, hunting, fishing, forestry, and water power. The income may be obtained through any one of these extractive industries or by temporarily assigning these rights to others in consideration of rent.

Land may be disposed of by sale, for cash or on credit; on account, through an unsecured claim or through a mortgage; by sale through foreclosure either in the case of a mortgage, tax, or other lien.

The application of the above principles may be seen in the following test:

Applied Theory Test Number One

James Morrison, being in business for himself, inherits from his father certain land (Parcel A) which can be used to advantage in the business. It was valued in the inventory of the estate at $10,000. He purchases one additional parcel of land

(Parcel B) for $15,000 paying $8,000 in cash, giving a purchase money mortgage for the balance and taking it subject to a mortgage of $4,000. On another parcel (Parcel C) he purchases the land for $20,000 paying $1,000 in cash, assuming a mortgage of $5,000, and giving a purchase money mortgage for the balance. He receives gratis from a neighboring town a parcel (Parcel D) for a manufacturing plant. This plot is low and swampy and requires draining and filling in which cost $2,500 but was held by a former owner at $4,000. It subsequently appreciated in value $7,500, while Parcel B depreciated $2,000. One-half of Parcel A was taken by the state under the right of eminent domain, at an appraised value equal to cost. Parcel D was sold by the state under a tax lien realizing for Morrison $11,000 and the mortgagee foreclosed on Parcel C selling it for $13,000.

Frame the journal entries necessary to express the preceding transactions.

REFERENCES FOR COLLATERAL READING:

Modern Accounting, Hatfield, pages 86-87.

Accounting Practice and Procedure, Dickinson, pages 76-77.

Science of Accounts, Bentley, pages 139-142.

Auditing Theory and Practice, Montgomery, pages 119, 331, 494.

Journal of Accountancy, Vol VIII, page 237.

CHAPTER VII

BUILDINGS

Buildings present a somewhat different subject for discussion than land. They are subject to a greater variety of possibilities than land, since it may almost be said of land that it cannot be carried away or destroyed, which is not true of buildings.

A new concern about to engage in business and seeking buildings for such purposes has a choice of two means of securing them. They may be constructed anew or they may be purchased. If not adapted to the needs of the business they may be altered to meet the demands.

Construction, presumably, is the method to be preferred. Having acquired the land upon which to place the building, the concern may proceed in one of three ways. The first is to purchase the material, engage the necessary workmen and supervise the construction. This statement while generally true should be qualified in one or two particulars. In New York City, and probably in all the other large cities of the United States, the building department of the city requires that the plans shall be drawn by, or under the direction of, an architect. In some cases where engineering construction is involved the plans must be made by an engineer.

As an alternative a contract may be made with some builder to erect the building. By this is meant an individual or concern which will take over the entire work of construction and be responsible for its completion. The plans may be obtained from an architect and furnished to the builder to follow.

As a second alternative the work may be turned over to an architect who will attend to the drawing of the plans, the letting of the contracts and sub-contracts, and the supervision of the work as it progresses. In this latter case it is customary for the concern, for which this work is being done and which is called the client of the architect, to make payments to the construction company or the contractors upon certificates of the architect as portions of the work are from time to time completed.

The architect receives for his services a fee which is based on a percentage of the cost of the work done. The rate for

general work as established by the American Institute of Architects is six (6) per cent. The service which this rate covers includes the necessary conferences, preparation of preliminary studies, working drawings, specifications, large and full size detail drawings and the general direction and supervision of the work. The rate varies according to the class of work, ranging from six per cent as above to fifteen (15) per cent in the case of designs for fabrics or special decorative work and is higher for work outside, than inside, the city.

The architect is becoming an important factor in the new construction work of to-day, especially in the larger cities. Where formerly perhaps the scope of his work was limited to the drawing of the plans, to-day, as a rule, he is the building specialist, who combines his technical skill with artistic taste for the best interests of his client and superintends the work from beginning to end. Among his duties in addition to preparing the plans are those of determining the location of the building; the quality of the soil on which the foundations are to rest; filing the plans with the building departments and securing their approval; getting the necessary permits to begin operations, obstruct the streets, open the streets for gas, sewer, and electric connection, etc. As to the installation of electricity he must secure permission from the Department of Water, Gas and Electricity and the Board of Fire Underwriters. Further, he must see that there are no violations of the rules and regulations affecting the public health.

One point in connection with building operations and one which should have a decided effect upon the accounting is that of the acceptance of the work. The risk for employer's liability and for fire is with the contractor until the work has been accepted by the client. Two things would appear to be certain. First, payment on account of the contract price is a matter of convenience and does not imply acceptance of the work. Second, the liability of the client to the contractor does not rise, even after the signing of the contract until the contractor has complied with the terms of the contract and performed the work required of him. Hence it would seem to represent something not true as to facts if at the time of signing the contract, the contract price were to be recorded on the books as showing the cost of the construction and the corresponding liability to the

contractor. What would appear if such a thing were to be done would be a so-called contingent asset on one side, offset by a contingent liability. It would probably be expressing it more correctly to say that two statistical accounts, having as their basis the contract price, have been raised, not to record facts but to provide for the recording of possibilities. The method which would seem to be more correct would be to charge—cost of contract and credit—the contractor, when estimates certified by the architect are received, closing out the liability in favor of the contractor when the payment to him is made. One of these steps might be eliminated also by charging the contract account direct and crediting cash at the time the payment of the estimate is made. A summary of the two ways of handling the matter would show as follows:

First Method:

First Step. Charge a contract account with the contract price.

Second Step. Credit the contractor in a similar amount.

Third Step. As estimates are paid charge the contractor and credit cash.

Result. The account with the contractor will be closed and the contract account remaining open will show the cost of the construction.

Second Method:

First Step. As estimates are certified by the architect, charge the contract account and credit the contractor.

Second Step. As estimates are paid, charge contractor and credit cash.

Result. Same as first method.

One point in connection with the final payment on contracts arises regardless of which method is employed. That is the amount which is reserved by the client to protect himself against defective work. Such a reserve is customary in contract work and is sometimes withheld for a year or more. The effect which such procedure would have on the second method is apparent. Pending final payment the contract account will not show the total cost of the work which information might be needed for

various purposes prior to final settlement. On the other hand it is not desirable to charge the contract and credit the contractor with the amount retained since it may not be a liability in his favor if defective or unsatisfactory work is discovered subsequent to the completion of the work. Both ends may be served by charging the contract and crediting a reserve for defective work, or an account with some other appropriate title.

To leave the matter of contracts, while having discussed them from the side of the client only, would seem to leave the subject only half completed. Apparently, to find a more appropriate time to consider this phase of contracts would be difficult.

Approaching the subject from the point of view of the contractor, he appears to be in this position: he holds a contract under which he is to do certain work and from which presumably he will derive some profit. With him it is largely a question of whether he shall consider a profit as earned until the contract is completed and the actual cost determined and if so how the earnings shall be taken up with regard to periods.

The price at which a contractor agrees to do a certain piece of work is presumably made up of two parts, namely, cost and profit. Taking for example a contract in which the price is $10,000, made up of an estimated cost of $8,000 and an estimated profit of $2,000, it would appear that when the contract is one-half completed, if the actual cost has not exceeded $4,000, the contractor is entitled to take up a profit of $1,000. In other words, he appears to be entitled to take into his earnings, one-half of the contract price, or $5,000. In an ideal case such as this is, it is not probable that any objection could be raised to this procedure. Two things in practice, however, complicate matters.

Many contractors, while making estimates on individual jobs, do not keep accurate records showing the actual cost of the individual jobs, and in some cases do not keep records at all. Thus it is impossible in such cases to determine from the cost records the stage of completion which has been reached when the general books are closed. By this is meant whether the contract is one-half or two-thirds completed, or whatever the stage may be.

In a large concern having several contracts there will be a variation in the length of time required to do the different jobs,

so that no exact data as to the stage of completion can, in the absence of a cost system, be obtained. If the contractor decides to take up a part of the earnings before completion, the percentage to be taken up will necessarily be based on an estimate which should be an average of the various stages of completion of all contracts.

In addition to the above two complications it may be mentioned that the second half of a contract may be the part which will prove destructive to the profits. At a stage of half completion the actual cost may have been kept within the estimated cost and one-half of the earning and accompanying profit quite properly taken up. In completing the contract the balance of the estimated cost may be so greatly exceeded as to wipe out not only the profit corresponding to the latter one-half but also that pertaining to the former part.

As contrasted with the practice of taking a percentage of the contract price into earnings before completion, there exists the practice of deferring such an operation until the contract is completed. This practice meets with the objection that the cost is not consistently applied against the income. Under such methods it would be possible to have a case wherein all the cost with no income, would appear in one accounting period, whereas in the succeeding period all the income, with no cost, might be shown.

While such an occurrence is possible it is rather improbable and many accountants are inclined to the opinion, that as between periods the two factors will be "averaged up."

One more point should, it seems, be discussed before leaving this topic. The two previous cases were based on the assumption that, upon the signing of the contract, or as estimates had been rendered, charges had been made to the customer's account in the amount of the contract price and some account, the name of which at this time is unimportant, had been credited. In this case it may be assumed that such a step is deferred until the contract is practically completed. As estimates are rendered no record is made in the financial books. When the estimates are paid, cash is charged and the customer's account credited. When the contract is completed, the customer is charged with the full contract price and the earning account is credited.

All of the above cases have been founded on building and

similar contracts where payments on account, or estimates, as they are called, affect the bookkeeping. The above remarks are equally applicable to other kinds of contracts, such, for instance, as an accountant would make with a client. The variation is slight in such cases and consists principally in substituting temporarily for the client's account, one termed, unfinished contracts or unfinished engagements. This offers an opportunity for building up or adjusting the charges to the customer's account until the contract or engagement is completed.

No matter which method is adopted the contractor must make provision for an appropriate reserve if the customer retains a certain percentage for defective work after completion. The manner in which this is accomplished depends upon whether the contracts are entered in total or by estimates and whether the estimates are entered gross or net.

An entry to cover this reserve would be necessary upon completion of the contract were the estimates to be entered net. Were they to be entered broad, or gross, the reserve would be automatically built up from time to time. To explain this, let it be assumed that the first estimate on a $40,000 contract is as follows:

To material and labor supplied in the construction of factory building at Flushing, Long Island	$6,550
Less 10%	655
Amount due	$5,895

The estimate after being approved or certified by the architect, or his inspector, goes to the customer. If the contract price is $40,000 then it will be plain that upon completion the various deductions will have accumulated so that $36,000 will have been paid and $4,000 withheld.

If the estimates are entered net, the account with the customer will have been charged with $36,000 and the earnings account credited with a corresponding amount. It will then be necessary to make a final entry charging the customer's account and crediting the reserve in the amount of $4,000.

If the estimates had been entered broad, the entry in the instance of the above estimate would have charged the customer with $6,550 and credited earnings with $5,895 while the reserve account was credited with $655. Subsequently as estimates were made, ten per cent would have been credited to the reserve so that at the end of the contract, the customer's account would have been charged with $40,000, an amount of $36,000 credited to earnings and $4,000 to the reserve. No further entry would then be necessary for this purpose.

The question may now arise as to the amount of $4,000 standing in the customer's account, and offset by a reserve of $4,000, as to its status from an accounting point of view. May it be looked upon as a positive or as a contingent asset?

The reserve has been created because of an uncertainty in collecting the amount from the customer. Failure to collect it may be due to defective work. If defects arise, the customer will usually notify the contractor who will proceed to make the work satisfactory, after which time the contractor may collect the balance due him.

If the contractor refuses to make good the defect, or correct something which has proven unsatisfactory, the contract usually provides that the customer may cause the necessary work to be done and pay for same out of the funds of the contractor which he has retained. Any balance remaining will then be paid over to the contractor. If the funds prove insufficient a demand for additional funds will usually lead to legal complications which need not be followed out here.

What is of interest, is the effect which the procedure just mentioned has upon the item of $4,000 in the customer's account. At first glance, and from the side of the contractor, it has the appearance of a contingent asset. From the side of the customer, it appears to be a contingent liability. The contingency in both cases is that the work may prove defective or unsatisfactory. If such a thing happens the contractor, it would appear, will have no claim upon the customer and the customer will not be obliged to pay the contractor.

It is just here that the fallacy of such reasoning becomes apparent. In the first place it may be considered that the contractor did have a good claim upon the customer. He has not been able to realize upon it on account of being obliged to make

the customer an allowance for defective work. Need a merchant who sells goods look upon his accounts receivable as being in part contingent assets because of the fact that he may be obliged to make allowances to customers for damaged or defective goods? It is not probable that many accountants would reason thus. Consequently the contractor will probably be seen in the same light as the merchant. The contractor seems to have agreed for a certain price, to deliver certain "goods" in the form of a building. If the building is not satisfactory he allows the customer to make it so at his (the contractor's) expense.

The customer, on the other hand, is relieved from making the final payment to the contractor and thus would appear to escape the liability. He is obliged, however, if the defect is to be corrected, to pay some one other than the contractor. This has no effect on the liability. A liability, it must be remembered, is not determined by determining who the creditor is. The fact that the customer has to pay some one to do the work would seem to remove any trace of a contingency and stamp the amount in question as a definite liability.

The various methods of handling contracts on the books of the contractor may be generally represented by eight typical cases. To show the accounts affected and the manner in which they are affected, in the different cases, is the object of the following journal entries and ledger accounts. The figures used in each case are:

Contract price	$40,000
Amount retained	4,000 (or 10 per cent)
Cost	30,000
Estimates	
(1) $12,000	
(2) 8,000	
(3) 14,000	
(4) 6,000	

First Case, based on the assumption that

(*a*) Contract price is entered in books when contract is signed.

(*b*) Income (or earning) from contract is not taken up until contract is completed.

Upon signing the contract	
Customer	
To Income from Contracts	$40,000
Upon payment of estimates	
Cash	
To Customer	36,000
For cost of contract	
Cost of Contract	
To Accounts Payable (or cash)	30,000
Upon completion of contract	
Income from Contracts	
To Reserve for Defective Work	4,000

The ledger accounts will appear as follows:

Customer

$40,000	$36,000

Income from Contracts

$4,000	$40,000

Cost of Contract

$30,000	

Cash

$36,000	

Accounts Payable

	$30,000

Reserve for Defective Work

	$4,000

Second Case, based on the assumption that

(*a*) Contract price is entered in books when contract is signed.

(*b*) Income from contracts is applied to period in which earned.

(*c*) Books close when contract is half completed.

Upon signing the contract	
Customer	
To Income from Contracts	$40,000
Upon payment of two estimates	
Cash	
To Customer	18,000
For Cost of Contract	
Cost of Contract	
To Accounts Payable (or cash)	15,000

Upon closing the books

Income from Contracts	$22,000	
To Reserve for Uncompleted Contracts		$20,000
Reserve for Defective Work		2,000

The ledger accounts will appear as follows:

Customer	
$40,000	$18,000

Income from Contracts	
$22,000	$40,000

Cash	
$18,000	

Cost of Contracts	
$15,000	

Accounts Payable	
	$15,000

Reserve for Uncompleted Contracts	
	$20,000

Reserve for Defective Work	
	$2,000

Third Case, based on the assumption that

(*a*) Contract price is not entered in books when contract is signed.

(*b*) Estimates are entered broad as rendered.

(*c*) Income from contracts is not taken up until contract is completed.

Upon signing the contract

No entry in general books

Upon rendering estimates 1 to 4

Customer (1)	$12,000	
To Income from Contracts		$10,800
Reserve for Defective Work		1,200
Customer (2) (3) (4)	28,000	
To Income from Contracts		25,200
Reserve for Defective Work		2,800

Upon payment of estimates

Cash		
To Customer		36,000

For Cost of Contract

Cost of Contract		
To Accounts Payable (or cash)		30,000

Upon closing the books—no entry necessary

The ledger accounts:

Customer	
$12,000	$36,000
28,000	

Income from Contracts	
	$10,800
	25,200

Reserve for Defective Work	
	$1,200
	2,800

Cash	
$36,000	

Cost of Contract	
$30,000	

Accounts Payable	
	$30,000

Fourth Case, based on the assumption that

(*a*) Contract price is not entered in books when contract is signed.

(*b*) Estimates are entered broad as rendered.

(*c*) Income from contracts is applied to period in which earned.

(*d*) Books close when contract is half completed.

Upon signing the contract—no entry

Upon rendering estimates 1 and 2

(1) Customer	$12,000	
To Income from Contracts		$10,800
Reserve for Defective Work		1,200
(2) Customer	8,000	
To Income from Contracts		7,200
Reserve for Defective Work		800

Upon payment of estimates

Cash		
To Customer		18,000

For Cost of Contract

Cost of Contract		
To Accounts Payable (or cash)		15,000

Upon closing the books—no entry

The ledger accounts:

Customer	
$12,000	$18,000
8,000	

Income from Contracts	
	$10,800
	7,200

Reserve for Defective Work	
	$1,200
	800

Cash	
$18,000	

Cost of Contract	
$15,000	

Accounts Payable	
	$15,000

Fifth Case, based on the assumption that

(*a*) Contract price is not entered in books when contract is signed.

(*b*) Estimates are entered net as rendered.

(*c*) Income from contracts is not taken up until contract is completed.

Upon signing the contract—no entry		
Upon rendering estimates 1 to 4		
Customer		
To Income from Contracts		$36,000
(1)	$10,800	
(2)	7,200	
(3)	12,600	
(4)	5,400	
Upon payment of estimates		
Cash		
To Customer		36,000
For Cost of Contract		
Cost of Contract		
To Accounts Payable (or cash)		30,000
Upon closing the books		
Customer		
To Reserve for Defective Work		4,000

The ledger accounts:

Customer	
$36,000	$36,000
4,000	

Income from Contracts	
	$36,000

Reserve for Defective Work	
	$4,000

Cash	
$36,000	

Cost of Contracts	
$30,000	

Accounts Payable	
	$30,000

Sixth Case, based on the assumption that

(*a*) Contract price is not entered in books when contract is signed.

(*b*) Estimates are entered net as rendered.

(*c*) Income from contract is applied to period in which earned.

(*d*) Books close when contract is half completed.

Upon signing the contract—no entry	
Upon rendering estimates 1 and 2	
(1) Customer	
To Income from Contracts	$10,800
(2) Customer	
To Income from Contracts	7,200
Upon payment of estimates	
Cash	
To Customer	18,000
For Cost of Contract	
Cost of Contract	
To Accounts Payable (or cash)	15,000
Upon closing the books	
Customer	
To Reserve for Defective Work	2,000

The ledger accounts:

Customer	
$10,800	$18,000
7,200	
2,000	

Income from Contracts	
	$10,800
	7,200

Reserve for Defective Work	
	$2,000

Cash	
$18,000	

Cost of Contract	
$15,000	

Accounts Payable	
	$15,000

Seventh Case, based on the assumption that

(*a*) Contract price is not entered in books when contract is signed.

(*b*) Estimates are not entered as rendered.

(*c*) First entry is made when cash is received.

(*d*) Income from contracts is not taken up until contract is completed.

Upon signing the contract—no entry

Upon rendering estimates—no entry

Upon payment of estimates

Cash		
To Customer		$36,000
For Cost of Contract		
Cost of Contract		
To Accounts Payable (or cash)		30,000
Upon closing the books		
Customer	$40,000	
To Income from Contracts		36,000
Reserve for Defective Work		4,000

The ledger accounts:

Customer

Dr.	Cr.
$40,000	$36,000

Income from Contracts

Dr.	Cr.
	$36,000

Reserve for Defective Work

Dr.	Cr.
	$4,000

Cash

Dr.	Cr.
$36,000	

Cost of Contract

Dr.	Cr.
$30,000	

Accounts Payable

Dr.	Cr.
	$30,000

Eighth Case, based on the assumption that

(*a*) Contract price is not entered in books when contract is signed.

(*b*) Estimates are not entered as rendered.

(*c*) First entry is made when cash is received.

(*d*) Income from contracts is applied in the period in which earned.

(*e*) Books close when contract is half completed.
Upon signing the contract—no entry
Upon rendering estimates—no entry
Upon payment of estimates 1 and 2

(1) Cash			
	To Customer		$10,800
(2) Cash			
	To Customer		7,200
For Cost of Contract			
Cost of Contract			
	To Accounts Payable (or cash)		15,000
Upon closing the books			
Customer		$20,000	
	To Income from Contracts		18,000
	Reserve for Defective Work		2,000

The ledger accounts:

Customer

Dr.	Cr.
$20,000	$10,800
	7,200

Income from Contracts

Dr.	Cr.
	$18,000

Reserve for Defective Work

Dr.	Cr.
	$2,000

Cash

Dr.	Cr.
$10,800	
7,200	

Cost of Contract

Dr.	Cr.
$15,000	

Accounts Payable

Dr.	Cr.
	$15,000

Before leaving the subject, a word or two should be offered in explanation of the foregoing cases.

When the statement has been made that no entry has been made in the books it is understood to mean the general books. Few cases could probably be found in which a memorandum of contracts in some subsidiary book of account or record are not made. Statistics are not available to show the preference with regard to the various methods shown.

It will be noted that the ledger accounts have been allowed to remain unclosed to profit and loss. It should be understood that no closing entries have been made except such as are necessary to make the accounts affected by the contracts show the true facts in the different cases. If the closing entries were con-

tinued, such accounts as cost of contracts and income from contracts would be closed out to profit and loss to show either of these two results, as the case might be. An intermediate account, called a contract account, is sometimes used for this purpose. Into it are closed the cost of contracts and income from contracts, and after the profit or loss on contracts is thus determined it is closed out to profit and loss. It may also be mentioned that this contract account is frequently used in practice, not as an intermediary in closing, but to take the place of the detail accounts just mentioned, namely, cost of contracts and income from contracts. It is true that such an account will show the profit or loss on contracts, but it has too great a resemblance to the merchandise and other mixed accounts to meet with favor in the best modern practice.

In the eight typical cases previously illustrated by journal entries and ledger accounts the reserve for defective work was left open. The question which might naturally arise is, what is to become of the reserve? The disposition of it will depend upon whether the work withstands the test of a reasonable length of time. If it does, the reserve will have served its purpose. The amount reserved by the customer will be due. The reserve may be closed into the income from contracts account or to profit and loss, depending upon the circumstances.

If the work becomes defective, one of two things may occur; either the customer will cause the contractor to cure the defect or if the contractor refuses he will proceed to do it himself. If the contractor is obliged to do further work, while he will still be able to collect from the customer the amount withheld, the additional work will have the effect of increasing the cost and consequently reducing the profit. Reducing the profit means reducing the reserve if the cost of the contract happens to have been closed out to profit and loss, so that if such is the case it would appear proper to charge the additional work against the reserve.

Should the contractor refuse to make good the defects and the customer proceeds with such work, then at time of settlement, the customer would be credited with the amount expended and would pay over the balance. Assuming that of $4,000 retained by the customer, $2,500 has been so expended, the situation would be described by the following journal entries:

Reserve for Defective Work	$4,000	
To Customer		$2,500
Income from Contracts (or profit and loss)		1,500
Cash		
To Customer		1,500

Applied Theory Test Number Two

PART I

A employs B to draw plans for a building, paying him therefor four per cent of the cost of the building. B furnishes no supervision. A buys from C all material, amounting to $40,000 on which he has paid $35,000. The labor cost $55,000. Incidentals, permits, etc., $1,153.85 (paid). Determine the cost of the building and express the factors entering into the cost in the form of a journal entry followed by full description.

PART II

The Spencer Manufacturing Company engaged Mr. Archibald Russian as the architect to draw plans and supervise the construction of an addition to its plant. The rate of 6% was to be charged for this work, but it was agreed that he should design certain decorative work in the private office which was a part of the new construction. For this work he was to receive fifteen per cent. The contract was let to James Downs for $60,000, who rendered three estimates from time to time in the amounts of $15,000, $25,000, and $20,000. Extra work amounted to $2,500. Ten per cent was retained on the regular work, but not on the extra work. The decorative work in the private office cost $2,250. The work was begun in May and was two thirds completed at June 30, 1908, when both firms closed their books. The extra work and decorative work was completed at such time. The extra work had been invoiced, as had the first two estimates. The decorative work was included in the contract. Downs had received pay for the first estimate. Both firms followed the practice of entering estimates broad, as rendered. Downs had expended $37,500 and charged it to an account—Spencer Contract—and had figured $51,000 as the cost to him

when he made the contract. The cost of the extra work was \$1,800. Frame the entries necessary to show the facts at June 30th, (*a*) as to the books of the Spencer Manufacturing Co., (*b*) as to the books of James Downs.

PART III

After the work was completed, some parts of it proved defective. Downs refused to make the necessary corrections and the company was obliged to spend \$2,500 in making it right. The balance of Downs' funds were paid over to him. Assuming all bills of every description to have been paid by both parties, frame the journal entries and set up skeleton ledger accounts to show how the work would finally stand on the books of the three different parties interested in the construction.

REFERENCES FOR COLLATERAL READING:

Accounts, Their Construction and Interpretation, Cole, Chapters VII, XIII.

Modern Accounting, Hatfield, Chapter IV.

Auditing Theory and Practice, Montgomery, page 304.

CHAPTER VIII

BUILDINGS—(*continued*)

Land in the last chapter was seen to have an important bearing upon the business situation with respect to its location. Buildings play an equally important part with regard to their physical arrangement. Considerable attention has undoubtedly been given always to the matter of convenience in constructing or arranging a new building or system of buildings. More than the usual attention is now being paid to what might be termed the scientific arrangement of buildings in a manufacturing plant, which is in effect a system of buildings. Great attention is given to the planning in order that there may be no lost motion in the case of production. The receiving department should be easily accessible for wagon and team deliveries as well as on the railroad siding if one exists. The stores department should be adjacent to both the receiving department and the manufacturing department in which the material is first used. The idea thus conveyed should be carried out in the succeeding stages of manufacture, in such manner that the finished goods will, with the least possible amount of lost motion, end in the shipping room.

New construction, and especially that of new plants, which rather than old plants are usually best adapted to maximum production with a minimum of cost and expense, frequently involve such large sums of money that concerns are obliged to borrow for construction purposes. Such funds are frequently obtained through the medium of bonds, the security for which is vested in the newly constructed buildings. It is usually provided in such bonds that the proceeds resulting from their sale are to be used only in the construction for which the funds are obtained.

In addition to the above ways in which buildings may be obtained for business purposes, it should of course be mentioned that they may be purchased. If adapted to the purposes of the business they may be occupied without alteration or improvement. They may be purchased for cash or on credit. In either case they may be free or they may carry a mortgage. In the purchase of buildings on which there is a mortgage such mortgage may be assumed or the buildings bought subject to the mort-

gage, and regardless of this the building may be partially paid for by a purchase money mortgage. After a building or buildings have been acquired free from mortgage it may be necessary to borrow money, giving the buildings as security.

Thus in the purchase of land or buildings, or both, or in the borrowing of money as security for which the building is offered the accountant may come in contact with two classes of items which may affect the accounts.

One may be that of commission paid to the real estate broker who brings about the transaction. The transaction itself may consist in a sale or a loan. In either case, in New York City at least, the broker as a rule receives a commission of one per cent. In the case of a sale the commission is usually paid by the client who retains the broker. In the case of a loan the commission is usually paid by the borrower.

Another interesting and somewhat involved situation occurs in the "closing of a title," as it is called. This is the technical expression used by real estate men to describe the consummation of the transaction involving the purchase of a piece of property. It is the time when the title of the property is actually transferred by the vendor to the vendee.

There are usually many details which arise at the time of closing title which may not be overlooked, such as insurance, taxes, interest, rents, assessments, water rates, and the expense of drawing and recording the mortgage, as well as the mortgage tax if a mortgage is involved.

The insurance premium is usually pro-rated and an amount equal to the unexpired proportion paid to the seller by the purchaser.

The expenses in connection with the mortgage, such as the drawing and recording and the mortgage tax, are borne by the purchaser.

Rents, and interest on the mortgage, will depend upon whether they have been collected or paid, in either case, by the seller or whether they are to be collected or paid by him.

Taxes and assessments are usually paid by seller if at date of closing they have become a lien upon the property. The same is true of water rates when based upon the frontage, but where measured by meter the item is subject to adjustment.

The matter of rents, for example, would depend upon

whether they were payable in advance or at the end of a period and whether or not they have been collected by the owner, or seller, at the time of closing title. If they have been collected, it is clear that the purchaser will not receive them. If the rent of a certain store is $100 per month payable in advance, and the property changes hands on the fifteenth of a given month, then at time of closing title the seller will have received $50 which belongs to the purchaser. This amount the seller must give the purchaser credit for in closing.

To bring out the various points which arise in the purchase of property, and to confront the accountant with a situation such as he is liable to meet, is the purpose of the following tests:

Applied Theory Test Number Three

The Mellenette Realty Company after negotiations with James Stafford has entered into a contract to purchase from him a four-story building occupied as a factory. The contract price is $80,000. The title is to close December 15th. There was paid, by the Company, as earnest money, $10,000. The property is to be taken subject to a mortgage of $15,000 which bears interest at six per cent and which was last paid to include June 30th. The building is insured. The last premium paid was $360, which covered the property for the year beginning January 1st. There are two firms occupying the building. One pays $600 per month in advance. The other $100 per month, at the end of the month. The liens against the property are: taxes, $1,320; paving, $400; water rents, $250.

Assuming that at the time of closing, there was to be a purchase money mortgage of $3,000 given, the rents had been paid according to agreement and that the expense of drawing the mortgage was $10, recording $3, and the mortgage tax $15, prepare the closing statement.

In connection with the closing of title mention may be made of the title insurance policy which the purchaser usually provides himself with before closing.

The purchaser is presumed to know that the title is free and clear of encumbrances. To be sure of this fact it is necessary that the public record be searched. Few laymen are qualified for this work. A lawyer may furnish a report on a title and

still the purchaser has nothing more than the lawyer's opinion that the title is clear.

Title insurance companies engage in such business and not only render opinions in the shape of reports, but back up reports with a guarantee against defect in the title. For this service a premium, payable but once, is charged. That such companies fill a long-felt demand is evidenced by their number and prosperous condition.

REFERENCES FOR COLLATERAL READING:

Accounts, Their Construction and Interpretation, Cole Chapters VII, XIII.

Modern Accounting, Hatfield, Chapter IV.

Auditing Theory and Practice, Montgomery, page 304.

CHAPTER IX

BUILDINGS—WHAT MAY HAPPEN TO THEM

In discussing buildings with regard to what may happen to them, two phases of the situation should be covered, namely, what may occur physically, and, as to the title.

Physically they are subject to improvement, betterment, repair, renewal, replacement, alteration, depreciation, assessment, and destruction. Of these, the questions of assessment for taxes and of depreciation are of such importance that they will be discussed in detail later on.

As to the title, buildings may be affected by encroachment, encumbrance, restriction, non-payment of taxes, and through liens obtained by builders or other judgment creditors. The courts will usually grant what is known as a builder's lien in cases where a builder remains unpaid for material furnished in the construction of the building. Equal protection is afforded to the laborer through what is known as the mechanic's lien.

The terms, improvement, addition, alteration, repair, renewal, and replacement are used somewhat promiscuously in bookkeeping and accounting. They should be used with a great deal of care. Such care can only be exercised by giving thought to the meaning of the various terms. The basis for decision in each case should be one of value rather than cost.

An improvement signifies an increase in value. Nothing should be recognized as an improvement which does not add value to the property. Adding value usually carries with it the thought that the earning power of the property is increased, although not necessarily. It distinctly implies value added to that which previously existed.

In connection with improvements, two questions arise. First, is the improvement permanent in its nature? Second, is the improvement temporary in its nature? Both questions are practically answered by determining whether the property involved is owned or rented.

If the property is owned, the improvement usually becomes a permanent addition, subject, like that to which it was added,

to destruction by time and use. If the improvement is made to rented property, then the question of permanency, or of the life of the added value, is fixed by the terms of the lease.

Fire escapes, for example, might constitute the improvement in a given case. If the building were owned, there would probably be no doubt about the practice of capitalizing the improvement and subsequently writing the cost down along with the remainder of the building. If such an improvement were made to rented property, the treatment of such an addition would depend upon the terms of the lease. One of two things would probably be true; either the owner would allow the tenant a certain amount for the improvement at the expiration of the lease, or it would pass at such time to the owner of the building. If the former were the case, and the amount, as usually happens, could be determined sufficiently in advance, then there should be written off over the period covered by the lease, or the balance of the period of its life, an amount equal to the difference between the original cost of the improvement and the amount to be allowed by the owner of the building.

If no allowance were to be made by the owner at the expiration of the lease, the accounting procedure would be similar, except that the amount to be written off over the number of years covered by the lease would be the entire cost of the improvement, rather than the net amount, as in the preceding case.

Additions are practically synonymous with improvements. They are subject to the same qualifications concerning owned and rented property and to similar treatment after determining whether they are permanent or temporary in their nature.

Repairs should convey to the mind, restoration to the original condition after deterioration or impairment. They seem to differ from renewals and from replacements principally in extent. They may be termed minor renewals. They involve such work as is necessary to maintain the subject to which they are applied in its original state of efficiency, or of appearance.

The relation of repairs to renewals and replacements may perhaps be seen more clearly by taking a shingle roof, for example. The roof loses its efficiency when it begins to leak. It is failing to perform the function for which it was partially intended, namely, to keep out the water. The efficiency of the

roof may be restored by patching the holes. This is repairing the roof and answers the purpose until the holes become so numerous that a renewal of the entire roof becomes advisable. It might be said with equal truth that the old roof had been replaced.

Thus, while the roof might have been repaired, or renewed or replaced, no value has been added to the building for the reason that in either case, the cost of the repair or renewal has merely been in connection with the restoration of the roof to a condition represented by the original cost. The cost of the repair or renewal becomes an expense and is chargeable to the upkeep or maintenance of the building.

The general rule above mentioned is subject to qualification in certain instances and under certain conditions. In the case of renewals or replacements, if the material replaced has a salvage or scrap value, it is usually considered proper to reduce the expense of the renewal by such value and charge to up-keep or maintenance the net amount.

On the other hand where the material used to replace the old is different in its character, or of better quality, there would seem to be no objection to charging a part of the expense to maintenance and capitalizing the remainder. The division is arrived at by a comparison of values of the two kinds of material and capitalizing the amount by which the value of the new material exceeds the old.

This point is well illustrated by a railroad, which replaces sixty pound rail with eighty pound rail. Using one rail, as an example, the cost of the new eighty pound rail would be divided into two parts; one part, corresponding to three-fourths of the cost of the eighty pound rail, which would be chargeable to maintenance and the other part, corresponding to the remaining one-fourth of the eighty pound rail which would be chargeable to cost of road.

Alterations may partake either of improvements or repairs. An alteration constitutes a change. Changing the doors of a room does not seem to add any material value to the room. It may render the room better adapted to the needs of the occupants. Putting a partition in a room seems slightly different in that it makes one room do the work of two. In the first in-

stance the alteration would seem to constitute a repair, while in the second instance it appears to partake rather of an improvement. The accounting procedure would in such cases be governed by the interpretation which was placed upon the work.

The possibility of their being destroyed adds an interesting phase to the discussion of buildings. Earthquakes, floods, cyclones and fires are among the dangers at times besetting buildings. Their destruction may be partial or complete. It is brought about more frequently by fire than any other cause. Thus the discussion may profitably center around destruction by fire but the effect upon the accounting will be the same in any case, except as to the insurance.

Ordinarily the loss or destruction of an asset means a credit to the asset account and a charge to profit and loss. If buildings are not insured such will be the procedure in case they are destroyed. As a rule buildings are probably not insured as to earthquakes, floods and cyclones. They are usually insured against fire. Their partial or entire loss through any of the first three named causes would result in a charge to profit and loss in the amount of the loss. When insured, as in the case of fire, the accounting depends upon the circumstances. If the building is restored to its original condition by the insurance company, no entry is necessary. If a cash settlement is made by the insurance company the situation is altered. The owner of the building may decide to restore the old building in the case of an entire loss or he may decide not to rebuild.

Where an insured building is entirely destroyed, the situation, so far as the owner is concerned, is that he has converted his building into cash in an amount equal to the loss fixed by the insurance company. He has at his disposal a cash fund out of which he may rebuild. If the amount is equal to the book value of the building the procedure is simple; cash would be debited and the building account would be credited. Following the transactions historically in such a case, it might be advisable to interpose another entry. If the payment of the cash by the company was not concurrent with the notification of the amount of loss allowed, then it would be proper to charge the company with the amount allowed and adjust the building account, closing out the account with the company subsequently when the cash was received.

The same thing might happen in the case of a partial loss. In such an event the adjustment of the building account presents greater difficulties. Suppose that on a building costing $25,000 the company on a partial loss allowed and paid in cash $5,000. The general cash account or a special insurance fund account would be debited and the building account credited in the amount of $5,000. While this is the amount of the loss as fixed, by the company, it does not necessarily follow that $5,000 will repair the damage. If it would, the proposition would be simple. As the cash was expended and the cash account credited the building account would be charged and thus the value restored to the account. But supposing the cost of restoration was $6,000 instead of $5,000, would the entire $6,000 be charged to the cost of the building? It would not. What really happened was, that the loss was underestimated by the insurance company and that while it allowed only $5,000 the loss in reality was $6,000. The credit to the building account should have been $6,000, of which $5,000 should have been charged to cash while the $1,000 was charged to profit and loss. Obviously it is impossible to foresee such results so that the proper end is finally attained in partial loss by charging disbursements from the cash or insurance fund to the building until they have reached the amount allowed by the company, after which any further payments are charged to profit and loss.

As to the disposition of buildings it may be said that they may be disposed of by sale, or transfer, or demolished. If sold, such sale may be for cash or on credit. When on credit it may stand in an open account or be represented by a mortgage.

Where buildings are erected on leased ground, the question of their value at the termination of the lease becomes a problem. While it may be the intention, especially where the buildings are of an expensive and permanent character, that the lease will be renewed from time to time for long terms of years, eventually some one will have to face the problem.

The disposition of such property is usually covered by the lease, and while perhaps no general rule of practice can be stated, in many cases the lease provides that the buildings shall be appraised and that the owner of the land shall have the option of purchase at the appraised value. Where such is the provision and the owner of the land fails to exercise his option, the owner

of the building may be under the painful necessity of moving the buildings, or having them demolished.

Where it is stipulated that the owner of the land shall purchase the buildings at an agreed price, it is customary, if such price be lower than the cost, to write down the excess over the period covered by the lease.

Applied Theory Test Number Four

PART I

The New York Foundry Company, located at Mt. Vernon, N. Y., on the main line of the N. Y., N. H. & H. Railroad, leased on January 1, 1909, for a term of five years a plant well adapted to its needs, except that there was no railroad siding.

The Company expended $2,000 in constructing such siding with the understanding that at the termination of occupancy the siding should pass to the owners of the property.

Frame the entries covering such a case.

Assume that, having proceeded with the accounting under the theory that the lease was to terminate at the end of five years, you were informed near the end of the period that the lease had been renewed for five years, how would the situation be affected?

Assume that the lease provided that the improvement was to be taken over by the landlord at the expiration of the original lease at a valuation of $1,200, payment therefor to be spread over the terms of the lease by deduction from the rent. The rent was $6,000 a year. Frame an entry covering the transactions for any given year.

Applied Theory Test Number Four

PART II

Jennings & Company leased a four-story building on University Place for a term of twenty years, paying therefor an annual rental of $12,000. The firm occupied the first, second and fourth floors, sub-letting to another tenant the third floor at an annual rental of $2,400. During the first year of occupancy Jennings & Company expended $20,000 in alterations and fixtures with the understanding that certain partitions and other fixtures might be removed upon the expiration of the lease.

At the beginning of the eleventh year Jennings & Company moved to a building on Murray Street, taking with them fixtures valued at $4,000 and renting the space which they had occupied in the University Place building to various tenants at annual rentals aggregating $6,000. In order to secure desirable tenants it was necessary to expend $2,000 for alterations which it was understood would revert to the landlord upon expiration of the lease.

One sub-tenant at University Place whose occupancy began January 1, 1910, and whose annual rental was $960 paid his monthly rent for December, 1910, in advance. The remaining tenants did not pay for December until January, 1911. One of these latter, on a ten-year lease at $600 per annum, for whom alterations amounting to $600 were made in January, 1910, agreed to pay for the alterations in equal monthly installments extending over the period covered by the lease.

Frame the entries covering the alterations to the University Place building for the year 1910 and show the net income on the building for the year.

Applied Theory Test Number Four

PART III

The Bundy Manufacturing Company carried its buildings at $75,000. The buildings were designated by the letters A-B-C and D. The values were respectively $30,000, $15,000, $20,000 and $10,000. The equipment in building A cost $3,000; building B, $7,000; building C, $8,000; building D, $500. The plant was insured for $100,000.

On December 31, 1910, a fire occurred involving buildings A, B and C. The insurance adjusters visited the scene of the fire on January 2, 1911, and the insurance company subsequently offered the following settlement:

Building A, including equipment............	$13,000
Building B, including equipment............	18,000
Building C, including equipment............	22,000
	$53,000

The insurance company offered to make a cash settlement on building A. On building C it undertook to restore the building itself. On building B it agreed to approve bills for restoration up to the amount offered in settlement. The offers were all accepted on February 5, 1911, and the cash on building A was received February 6, 1911.

The restoration of building A, including equipment, cost $12,500. The restoration of building B, including equipment, cost $22,500, but included certain improvements valued at $2,500.

Frame the entries necessary to record the transactions historically.

REFERENCES FOR COLLATERAL READING:

Accounts, Their Construction and Interpretation, Cole, Chapters VII, XIII.

Modern Accounting, Hatfield, Chapter IV.

Auditing Theory and Practice, Montgomery, page 304.

CHAPTER X

EQUIPMENT

The term equipment has been given many different meanings. Used in one sense it seems to be merely an adjunct of machinery and tools as indicated by the balance sheet caption frequently seen —"machinery, tools, and other equipment." In other instances it is apparently considered as quite distinct from machinery and tools as evidenced by the separate balance sheet caption—"equipment."

The term when used in its broadest sense would seem to include everything except buildings proper. By buildings proper is meant the bare structures. Thus, equipment would seem to include everything within the plant walls or attached to them. To enumerate the items comprised in such a broad general class would be to embrace the equipment attached to the building walls, machinery and tools, equipment used in connection with machinery, any other equipment used in connection with the manufacturing processes, office furniture and fixtures, horses, wagons, harness, automobiles, etc.

To properly classify equipment is no easy task. The task may be somewhat simplified, however, if the term is first understood as covering everything in and about a plant with the exception of land and buildings. The ideal plant would seem to consist of a manufacturing department, a department for the generation of heat, light and power, a stores department, a stable and an office. All of these departments are housed in buildings. All of these buildings will undoubtedly be equipped with apparatus essential to the occupancy of the building regardless of the purpose for which each is used. They will doubtless all be equipped with what may be termed technical appurtenances which are necessary adjuncts to the purpose for which each is used. Thus it would seem for the moment that two broad general classes might be established, namely, building equipment and technical equipment. Building equipment might properly, it would seem, be allowed to stand without further division. Technical equipment would seem to require further classification in accordance with the use to which it is put.

In attempting to go into the refinements of the classification in the case of technical equipment certain conflicts which will become apparent from time to time as this discussion proceeds, are bound to arise between building equipment and technical equipment.

Building equipment is usually understood to mean the heating system (steam pipes, radiators, etc.), the lighting system (including fixtures), elevators, the plumbing system, the water system, with its pipes, hydrants and faucets, the sprinkler system, ventilating system, fire hose and extinguishers, etc.

Since the principal activities center around the manufacturing department, such department must needs occupy an important place in this discussion. In analyzing the technical equipment of the manufacturing department our attention is directed primarily to the machinery and tools used in the process of manufacturing. We find shafting and belting, cranes and overhead trolleys, intershop tracks and cars, racks and other receptacles for holding tools, facilities for moving the product about, such as wheelbarrows, boxes, cases, bins, etc.; we find vats, shovels, picks, tongs, stools and benches and chairs for operatives. We find certain auxiliaries, such as machine shops, carpenter shops, paint shops, repair departments; we frequently find welfare accessories in the form of kitchens, dining rooms, and hospitals. In the manufacturing department we also find desks and other furniture, and mechanical devices in connection with the recording of the work, etc.

The power plant consists of the engines, boilers, generators, transformers, and is usually understood as including the transmission ramifications. There will also be found in this part of the plant, shovels, wheelbarrows and miscellaneous tools.

The stores department will contain little technical equipment except facilities for handling materials and supplies and some office furniture and equipment.

The stable equipment will depend of course upon its size and the character of the conveyances which this department comprises. They will undoubtedly be equipped with an assortment of tools and where automobiles are used with sundry spare parts. The office will consist principally of furniture supplemented by sundry mechanical appliances and devices employed in the office work.

From the above it will be seen that various classifications may be evolved. The equipment seems largely to be connected with the manufacturing department. This might also be called the operating department. It will be further evident that much of the equipment is in departments or divisions which are auxiliaries to the operating department; also that throughout the various departments furniture and appliances devoted to the recording of the work are found. In all of the above, some equipment is noticeably large and important, while in other cases it is small and unimportant. For the purpose of classification of technical equipment it would seem that there were three main divisions, namely, manufacturing equipment, stable equipment, and furniture and office equipment. In the first instance it might be divided into operating and auxiliary equipment. Miscellaneous operating equipment might be further divided into major and minor. Auxiliary equipment might be also further classified as major and minor.

In the matter of conflicts the principal difficulty is found in the cases of the water system and the lighting system. The water system with its pipes, hydrants and faucets is undoubtedly a part of the building equipment, yet in many cases its principal service will be to supply water to the operating department for use in the process of manufacture, so that it will illustrate one of the many difficulties which the classification of equipment presents. It may be true that light is served principally to the employees engaged in work upon the product so that this point frequently furnishes opportunity for a discussion. Conflict will frequently arise in connection with the power plant. Its ramifications may transmit heat, light, or power and the question arises as to whether the steam pipes, light wires, and tubing, and the shafting and belting, shall be considered a part of the major operating equipment. There will be found below a chart in which classification of the above mentioned items of equipment as well as some others not previously mentioned is attempted. In presenting it the author calls attention to the fact that he is not an engineer and makes no pretensions at submitting a classification which is proof against criticism. The whole subject is so confused in the mind of the average student that this chart is intended merely to give him a broad general idea of the contents of a plant and enable him to reason more clearly with regard to the

EQUIPMENT

BUILDING	TECHNICAL					
	MANUFACTURING				Stable and Garage	Office
	Operating Department		Auxiliary Departments			
	Major	Minor	Major	Minor		
Heating system (steam pipes, radiators, etc.) Lighting system (tubing, wires and fixtures) Water system (pipes, hydrants and faucets) Sprinkler system Plumbing system Ventilating system Elevators Fire hose and extinguishers	Machinery and machine tools Shafting and belting Cranes and overhead trolleys Inter-shop tracks and cars	Hand tools Facilities for moving product about, such as wheelbarrows, boxes, cases, racks, bins, etc. Vats Shovels Picks Tongs Stools, benches and chairs for operatives	Machine shop Carpenter shop Paint shop Repair shop Exhaust system Draughting room Welfare: Kitchen Dining-room Hospital Power plant, including main shaft Stores Railroad siding	Tools " " " Patterns, plans and designs Utensils Dishes, chairs and tables Instruments Tools, wheelbarrows, shovels, etc. Shelves, tools, etc.	Horses Wagons Harness Autos Auto-trucks Repair tools Spare parts	Desks Chairs Typewriters Safes Rugs Partitions and fixtures Computing machine Filing cases Book cases Tables

various phases of accounting work which are related to plant equipment.

Equipment like buildings is subject to various possibilities. In studying the subject, thought should be given to it with regard to how it may be acquired, what may happen to it and how it may be disposed of. Briefly stated, it may be acquired by purchase or construction. It is subject to destruction either partially or wholly by fire and the other elements. It is usually affected more than buildings by depreciation. It requires repair and replacement frequently. It may be sold, demolished or discarded.

There are several phases of interest which arise in connection with equipment. Among these is the cost. In this connection it must first be determined whether the equipment is purchased from outsiders or constructed by the proprietor. Equipment may be purchased on a contract which provides for its installation, or the purchase price may cover merely the bare cost when an extra charge is made for its installation. If constructed by the proprietor it will contain all the elements of cost, namely, material, labor and overhead. Taking as an example a new machine purchased from an outsider to be installed free of charge, the cost will be merely that stated in the contract. If the contract price covers only the machine itself then there is a possibility that there will be charges covering the inward freight and cartage, foundations for the machine, and the further expense of installation. The cost in this case would include all these charges. If the machine were to be constructed by the proprietor, the cost would include the material of which it was composed, the labor incident to its construction, the preparation of the foundation including the material, the labor involved in the installation and a percentage of the overhead of the proprietary concern while the machine was in course of construction.

The division of equipment known as machinery and tools is frequently subdivided and sometimes classified as machines, machine tools, fixed machinery, movable machinery, hand tools, etc., and is so classified presumably for purposes of identification in individual cases where the circumstances indicate. In any event, machinery should be understood to include machine foundations and fixed appurtenances of any importance. The question of tools brings to mind certain instances wherein equipment may be considered by some concerns as supplies rather than

equipment. These are cases of concerns which use large numbers of small tools which are so quickly worn out that it is not considered advisable to capitalize them. They are looked upon as supplies and are charged to expense immediately upon being purchased or as soon as issued for use. It is rather difficult to lay down any hard and fast rule in cases of this kind and the treatment will depend largely upon the circumstances in each individual case, such as the policy of the company, or the wishes of the proprietor. There are two or three checks which are sometimes placed upon the tendency of employees to treat carelessly such articles of equipment. In the case of small tools which wear out quickly the life of the tool is determined and the issue placed upon a standard basis. They are sometimes charged to the individuals who are obliged to present the worn out tools before receiving new ones. They are sometimes accounted for by inventories. In this case instead of being charged immediately to expense at time of purchase they are charged to a purchase account and the amount to be charged to expense for the period is determined by taking an inventory at the end of the period, placing upon it a value and deducting it from the cost of the tools purchased. In one concern where scientific management is in operation each employee is furnished with a supply of small metal checks bearing his number. The supply of tools in the tool room being systematically arranged, the man in charge of the tool room upon receipt from any given operative of a certain number of checks, issues the tools required and substitutes in place of the tools the various checks which he has received. Thus he is enabled to tell at a glance the employee to whom each tool is issued. The writer was interested to know how the bonus system which was in use in the plant affected the man who had charge of the tools and upon inquiry learned that it was his duty to be in his place during certain designated hours, to see that all the tools were clean, sharp and in their proper places. This was the task imposed upon this particular individual. His work was inspected periodically and if he had complied with all the requirements of his task he received an efficiency bonus.

The accounts for equipment will depend largely upon the peculiar circumstances existing in each case. The classification in the general ledger will depend upon the captions which are required for balance sheet purposes. One concern may be satis-

fied with an account called equipment to which will be charged machinery of every description such as building equipment, machinery and tools, other operating and auxiliary manufacturing equipment, power plant, horses, wagons, harness, automobiles, office furniture, etc. In other concerns separate accounts may be kept for these different classes of equipment, consolidating them in various combinations in the balance sheet. The accounts may also be kept separate at times for the purpose of determining the separate cost of some particular class of equipment or for controlling underlying records containing the details. It should be also borne in mind that in some instances the accounts on the general ledger will be kept with the various buildings in order to show in connection therewith the cost of the respective buildings, including their equipment. Detailed records of equipment are sometimes kept for the purpose of classifying it for depreciation purposes. In such cases the equipment is classified in accordance with its life. The matter of depreciation of equipment will be discussed under that general topic later on.

REFERENCES FOR COLLATERAL READING:

Science of Accounts, Bentley, pages 151-156, 191-194, 196-197.

CHAPTER XI

INVESTMENTS

Every business organization must be assumed to have some specific object in engaging in business. It is true of course that the object of all business organizations is profit. This, however, is not sufficiently specific. Each organization is engaged in some particular line of business for profit. For such an undertaking, capital is made available and the assumption is that any given concern will upon organizing supply itself with such an amount of capital as is adequate to carry on the business in question. Such capital will be in the form of assets which are required for the purposes of the business. For example a concern may invest in land upon which to construct a building; it may subsequently construct the building and equip it with the necessary facilities for transacting the business. A part of the capital may be in the form of cash and after a period of operations some of the capital will usually be in the form of accounts and notes receivable. Whether engaged merely in trading or in manufacturing and selling, some capital will be in the form of materials and supplies or merchandise either partially or wholly completed and ready for sale.

In the ideal case the proportion of capital invested in these various assets would be distributed proportionately to the need of the business. Money will not be tied up in land or buildings to such an extent that there is no cash available for liquidating current liabilities. A concern will not overstock itself in the matter of merchandise to such an extent that it is embarrassed for cash with which to meet its pay rolls. If profits result from the transaction of business they will presumably be converted into cash and paid out in the form of dividends, thereby reducing the surplus.

It sometimes happens that a concern accumulates or acquires profits which are greater than the dividends necessary to allow a fair return on the invested capital. Such undivided profits constitute a surplus. The cash may increase to such an extent that there is more on hand than that required for current purposes

and dividends. It may then be converted into various forms of assets known as investments. Such a class comprises stocks and bonds, bonds and mortgages and land or buildings not required in the conduct of the business. They may be income producing, but such income is not the result of operations incident to the principal business of the organization. It is to be considered as secondary income or income from sources other than operations. The income may take the form of interest, dividends, or rent.

Such items may be represented on the general ledger by one account for investments. However, the accounts will usually be such as to show the classification of investments if they are numerous. By this is meant that ordinarily if there were securities, bonds and mortgages and real estate, there would be separate accounts for each of the above mentioned class on the general ledger. Frequently, especially in large concerns such investments become sufficiently numerous to warrant subsidiary records, supporting the controlling account, in which the details of the investments are recorded. It is especially desirable that such books should provide for all the information pertaining to the assets.

Bonds call for the payment of a fixed amount of money at a given time. They may be purchased at par, above par when they are said to be bought at a premium, or below par, when they are said to be bought at a discount. The face of the bond is payable with interest at a certain rate per cent. The interest although calculated annually may be payable semi-annually or quarterly on specified dates. Thus there arises the question of the accrual of the interest. There is also the no less important question of what is to be done with the premium, in case the bonds were purchased or acquired at a figure above par, or what to do with the discount if they were purchased or acquired below par.

A bond for $1,000, payable 20 years hence, if purchased at 120 will only produce at maturity $1,000. The premium of $200 will be lost. On the other hand the same bond purchased at 80 will produce at maturity $1,000 and there will be a gain of $200. In the case of the bond purchased at a premium, if no steps are taken to prevent, upon maturity $200 will be charged to profit and loss. In the opposite case $200 will be credited to profit and loss. The best practice in both these instances dictates spreading either the premium or discount over the remaining life of the

bond. These processes are known as amortization in the case of premium and accumulation in the case of discount.

The principles involved in amortization and accumulation are well illustrated as applied in estate accounting to a life-tenant and a remainder-man. The life-tenant is the party who enjoys the benefit of the income of the estate during life, after which time the principal passes to the so-called remainder-man. The illustration which follows is purposely freed from any element of compound interest, such as attends the scientific evaluation of bonds and division of interest, in order that the principles may be the more easily understood.

A bond the par value of which is $1,000 is appraised on January 1, 1910, at $1,200. The bond bears interest at 4% per annum and matures January 1, 1930. Under the terms of the will the bond is bequeathed to A, but the income is to be enjoyed by B during his life. B is the life-tenant and A is the remainder-man. A has received a bequest of $1,200.

If B receives the annual interest of $40 he will during the period of twenty years have collected $800. Upon the maturity of the bond at the expiration of twenty years there will be no further income and the proceeds of the bond ($1,000) would presumably be re-invested if B were still alive. It will be noted that there has been a loss of $200, all of which under the circumstances A would have to bear. In other words, the principal of the estate has been decreased $200. This occurs because no provision has been made to amortize the premium, which was included in the appraisal. B has apparently been receiving more interest than he should have received.

The facts are that B has received annually more than he should have received. Provision should have been made for the loss of premium at maturity. The premium of $200 should have been provided for by annual amortization extending over the period of ten years. Ten dollars ($10.00) should have been deducted from the interest paid to B every year, and instead of receiving $40.00 each time he should have received only $30.00. Thus during the twenty years $200 would have accumulated to make good the loss of premium upon maturity of the bond.

To make the accounting procedure clear the following entries and skeleton ledger accounts may serve:

1910			
January 1.	Bonds	$1,200	
	To Principal		$1,200
	Cash	$800	
	To Reserve for Amortization		$200
	Income		600
	(covering the period of 20 years)		
	Income	$600	
	To Cash		$600
	(for income paid to B)		
1930			
January 1.	Cash	$1,000	
	Reserve for Amortization	200	
	To Bonds		$1,200
	(upon maturity of bonds)		

Bonds

$1,200	$1,200

Cash

$ 800	$600
1,000	
$1,800	$600
$1,200	

Principal

	$1,200

Reserve for Amortization

$200	$200

Income

$600	$600

These accounts, it will be seen, show that the principal of the estate has been maintained at $1,200, notwithstanding the fact that the assets have been converted from bonds into cash.

Accumulation is the gradual increase of investment principal through the addition at each interest period of a part of the discount. Such procedure brings the bond to par at maturity. Thus, on a yearly basis, in the case of a 6% bond yielding 6½%, $60.00 would be charged to accrued interest; $5.00 to investment principal; and $65.00 would be credited to income. Since discount increases the yield, it is generally understood that the life-tenant of an estate derives the benefit from the discount.

The application of the principles to mercantile or other organizations has the effect of measuring through amortization and

accumulation the exact amount on interest bearing securities like bonds which can be taken into income. The scientific method of calculation takes into consideration the compound interest but as this is a matter of mathematics which tends to cloud the elucidation of principles and tables are available for the purpose of determining the yield of bonds it will not be discussed here.

In considering the matter of accrued interest it might be assumed that the interest on a bond of $1,000 amounted to $60.00 and was payable semi-annually on July 1st and January 1st. Under these circumstances in closing the books for the quarter ended March 31st it would be necessary to take into consideration the accrued interest of three months, or $15. To carry the illustration a step further in connection with the purchase of a bond and assuming it to have been purchased on February 28th at par, the purchaser would pay to the seller $1,010, representing the face value of the bond and the accrued interest. The seller has transferred to the buyer, having been paid therefor, the right to collect the interest on the bond from the beginning of the year and when the buyer receives the interest for the first six months he will receive $60.00 and not $50.00.

Taking into consideration all of the above facts, it appears then that the records for bonds should be rather elaborate and provide for many possibilities. Thus such a record should show the date of the bond, the par, the purchase price, the accrued interest, the rate of interest, the dates of payment of interest, the date of maturity of the bond, the accumulations of discount, the amortization of premium, the sale of bonds with the amount of par sold, the sale price and the accrued interest at time of sale. Such possibilities are provided for usually by columnar ledgers, having appropriate headings for the columns.

Stocks differ from bonds in that instead of being promises to pay a certain sum of money at a certain stated time, they are evidences of share ownership in the net assets of some corporation. The income differs from bonds in that it cannot be accrued like interest. The income on stocks is in the shape of dividends whereby profits are distributed, and become available only by an act of the directors of the corporation declaring such a distribution of profits and such a dividend payable. Dividends may be taken up as income only after having been declared. A concern owning certain shares of stock in the Pennsylvania Railroad

Company where dividends continued uninterrupted at a fixed rate over a period of years would not be justified if upon closing the books at March 31st the quarterly dividend on Pennsylvania stock had not been declared. If, however, such a dividend were declared on March 27th, payable on April 15th to stockholders of record on March 31st, then a concern owning stock in the Pennsylvania Railroad might properly take such a dividend into income even though it had not yet been actually received. The books in such case should provide adequately for all details concerning stock showing the date of purchase, the par purchased, the market price whether with or without dividends, the date of sale, the sales price, the par sold and whether with or without dividends. Columnar ledgers are generally used for this purpose.

Bonds and mortgages as investments constitute two instruments. A bond is the instrument which promises to pay a certain sum of money at a specified date at a certain rate of interest. The mortgage is the instrument which secures the bond. For accounting purposes the mortgage may be ignored and the attention directed to the bond. The interest on this class of securities may be accrued like that on any other bond, and in closing the books cognizance should be taken of the amount accrued whether or not at such time it has been actually received. If for example, a bond and mortgage of $10,000 bears interest at the rate of 5% per annum, upon closing the books at March 31st, provided the bond has been held for the three months preceding such date, the interest should be accrued and the corresponding amount taken into income. The entry in such case would consist in charging accrued interest on mortgage and crediting interest earned on bond and mortgage. The accrued interest constitutes an asset. The careful use of words in describing such an entry is desirable. By common consent among many accountants it has become customary in describing this asset as well as various other assets involving accruals, to make the word accrued the first word of the title. For example: "Accrued interest on bond and mortgage," rather than "Interest accrued on bond and mortgage." The former expression is accepted as indicating an asset whereas the latter is usually understood to denote a liability. This rule applies as well to other forms of bonds, and the income from land or buildings. Thus in practice the expressions are used to denote the accrual of income represented by assets as "accrued

interest on securities," or "accrued rent," etc. The books providing for the record of the details in the case of bonds and mortgages should as in the other instances provide for all the possibilities. There is, however, in this case no question of par, premium or discount involved, as in the case of corporation bonds bought and sold in the market. The records should show the date of the bond, and date of maturity, the face of the bond, the rate of interest and the dates on which such interest is payable. Attention should in this case be given to any interest accrued on the instrument at time of acquisition in order that upon actual receipt of the interest in cash the proper account may be credited.

Little need be said with regard to the detail records for rent except in such cases as where tenants are numerous. Instances of this kind require that the detail records shall show the name of the tenant, the period covered by the lease, the annual rental and the manner in which it is payable, whether in advance or at the expiration of the month.

Two questions arise frequently concerning the above mentioned investments. One is the value at which they shall be carried in the balance sheet, and the second whether they are capital assets or current assets. In attempting to answer these questions it would seem that land and buildings might be eliminated, for the reason that they could scarcely be considered as current assets under any circumstances and for the further reason that the subject has been discussed rather thoroughly in the chapters dealing with land and buildings. With bonds and mortgages it is somewhat different. As to their value probably no one will dispute that they should be carried at cost. The fact of their being capital assets is open to discussion. It is not believed that they should be considered current assets, for the reason that they represent an excess of capital over and above that required by the business, and that while they may be in the majority of cases easily convertible into cash it is only in the event of some extraordinary circumstances or unusual demand that such proceeding takes place. They seem to be looked upon more in the nature of fixed capital and not as something which is fluctuating constantly in conformity with the volume of business.

What has been said concerning bonds and mortgages in respect to their being current assets is believed to be also true of other bonds and stocks. Such a conclusion eliminates from the

discussion everything then except as to the value at which they shall be carried as assets. Some organizations adjust them to market prices at closing dates. In some of these cases such a procedure is merely a part of the policy of the company, in other cases where the government exercises supervision and control over them, it is because of the requirements of the government regulations. To carry them on the books at cost seems proper. In showing them on a balance sheet it is desirable to show, either as a footnote or in parentheses opposite or immediately under the caption, the market value. Where they are carried at cost and the market has declined at closing dates the effect of the market fluctuation is sometimes indicated on the balance sheet by a reserve without making any change in the figures shown on the asset side.

Treasury stock is sometimes included under investments. While this is quite proper, precaution should be taken where it is so included to make sure that the item so represented is in reality treasury stock and not capital stock unissued. Unfortunately the term treasury stock is at times given two different meanings. It is sometimes used to denote capital stock which is unissued.

Capital stock may be considered as issued when it is signed, sealed and delivered for value. Until the last named of these steps has taken place it must be considered as unissued. It is hard to see how unissued stock can ever be considered as an asset. Up to the time of issue it is not in reality capital stock in any sense of the word. The certificate of stock is evidence of the fact that capital has been received and must be accounted for to the party from whom it was received to the extent indicated by the certificate. The difference between the capital received and the amount of capital which the corporation is authorized to secure is represented by nothing except figures expressing this amount. The words treasury stock carry with them a significance of value. For this reason it appears rather incompatible to consider this amount, descriptive of nothing but a measure of possibilities, as treasury stock.

If the evidence of receipt of capital, namely a certificate of stock has once been issued for money or property, then something of value attaches to it and it becomes representative of an asset. Stock issued in this manner and subsequently acquired has a

value, instead of being a worthless piece of paper, it represents something for which value has been received. Upon having been acquired subsequent to its original issue for value, it may be properly considered as treasury stock. To acquire it presumably means that the accountability for capital for which it was originally issued has been reduced. Why not then ask the question, "Why is it carried in the treasury?" "Why not cancel the accountability represented on the books by the capital stock outstanding accounts?" The answer to these questions is that there is a possibility that it may again be issued or in reality sold, and it seems useless to go to the trouble of cancelling the outstanding accountability and subsequently restoring it in accordance with the fluctuations of treasury stock. Then there is the added reason that the original issue of capital stock cannot be disposed of at less than par without a corresponding liability for the difference between what it was issued for and par attaching to it. Treasury stock is presumed to have been issued once for its par value and therefore may subsequently be sold at any price or given away if desired. Attention is again called to the fact that if treasury stock is shown on the books or balance sheet as an investment or in fact in any other group of assets, the above mentioned distinctions must be observed.

REFERENCES FOR COLLATERAL READING:

Accounting Practice and Procedure, Dickinson, pages 38, 82-87, 116-118.

Modern Accounting, Hatfield, pages 90-97.

Accountancy of Investment, Sprague and Perrine.

Auditing Theory and Practice, Montgomery, pages 113, 362-365.

CHAPTER XII

WORKING AND TRADING ASSETS

This group comprises materials and supplies, goods in process, finished goods, finished parts purchased to complete manufactured goods, packing material, coal, oil and waste, stationery, advertising matter, postage and any inventories similar in their nature to the foregoing. They are physical assets which are consumed either in the manufacture of the goods or the conduct of the business. They are called working and trading assets because they are the assets which the organization is working into goods for sale or into expenses attending such operation or because they are assets which are on hand for sale or trading purposes.

The accounts for items in this group are used in practice in three distinct ways. The first is to combine the old inventory and the purchases in one account and determine the consumption by the inventory method of crediting the new inventory and closing out the balance to a consumption account. The second is to combine the old inventory and the purchases in one account and determine the consumption by the direct method, so that crediting the amount consumed to the asset account will show the inventory. The third way is to run separate accounts for inventories and purchases. The inventory is entered in the asset account both at the beginning and at the end of the period and the difference only, whether it be debit or credit carried to the consumption account. The consumption account as used herein is used in a broad sense. The term is intended to mean any nominal account into which working or trading assets may be closed. It would embrace manufacturing cost, cost of goods sold and expense accounts such as stationery and printing expense, postage expense, etc.

In the illustrations of the varieties of practice which follow let these facts with regard to materials and supplies remain constant: inventory December 31, 1910, $20,000; purchases, $15,000; inventory December 31, 1911, $28,000; consumption, $7,000.

In the first case, the account becomes a mixed one. It partakes of the nature of both a real and a nominal account. At the beginning it is a real account. During the period it is a mixed

account. In construction it is precisely like the old-fashioned merchandise account. In operation it is also identical. It is opened on the debit side with the inventory at the beginning of the period. It is charged with the purchases. It is credited with the inventory at the end of the period. It is closed by the balance in the account which is carried to the consumption or manufacturing account. Thus, if to the inventory at the beginning of the period of $20,000 we add the purchases of $15,000 there is $35,000 to be accounted for. If at the end of the period $28,000 remains on hand, $7,000 must have been consumed or have disappeared. It will be seen that the amount of material has been determined by the inventory method. The accounts would appear as follows:

MATERIALS AND SUPPLIES

Inventory, beginning.	$20,000	Inventory, end......	$28,000
Purchases..........	15,000	Consumption.......	7,000
	$35,000		$35,000
Inventory, new.....	$28,000		

CONSUMPTION ACCOUNT

Materials and supplies	$7,000	

In the second case, the account can scarcely be called a mixed one. It might appear without thought to partake of the nature of both a real and a nominal account. It does not, however, since the consumption is determined by the direct method. When the account is used in this way the materials and supplies are usually issued on requisition. The requisition when honored and priced becomes the basis of a charge to the consumption account and a corresponding credit to materials and supplies account. It is true of course that for convenience the requisition will be summarized and the aggregate amount credited to the materials and supplies account only at the end of the month, or end of the accounting period. Theoretically, however, the materials and supplies account is reduced every time a requisition is filled.

In many instances the consumption is determined by keeping

a running stock account with each class of material or stock. The determining of consumption does not necessarily depend upon the use of requisitions. The stock account may be kept in a book, either bound, or composed of loose leaves, or upon cards. For convenience cards are sometimes located adjacent to the stock itself. The location of the record has little bearing upon the method so long as there is an account for each class of stock. Given such accounts, they are debited with the opening inventory. They are subsequently charged with any receipts, whether by purchase or otherwise. They are credited with all issues at the time the issues are made. The balance in the account should show the stock on hand.

In connection with stock records, the question frequently arises, "what shall be done when the balance in the stock accounts does not agree with the physical inventory?" The disposition of such discrepancies must necessarily depend upon the cause. There are various things which cause the difference which may arise. One is failure to enter all receipts on the debit side of the account. Another is an error in footing the debit side. Still another may be failure to record an issue on the credit side. It is also possible that the actual stock issued did not agree with the record which was made of the issue or that the credit side of the account has been incorrectly footed. An attempt should first be made to correct any of the above mentioned causes of the discrepancy. If such measures prove ineffectual the account should be adjusted to agree with the physical inventory.

The question which now presents itself is "which complimentary account shall be affected by the difference?" If the physical inventory is greater than the book inventory the stock account must be charged. Which account is to be credited, consumption or profit and loss? If the physical inventory is less than the book inventory the stock account must be credited. Which account is to be charged, consumption or profit and loss? If the consumption account is charged or credited the cost of the goods manufactured or sold will be affected accordingly. Supposing, for example, that profit and loss has been charged for a shortage which although not clearly shown by the accounts was actually consumed in the manufacture of goods. The cost of manufacture will be incorrect to the extent of the shortage thus charged. On the other hand suppose that the difference was due to theft and

instead of being charged to profit and loss the amount was charged to consumption or cost of manufacture. Again the consumption account would be incorrect to the extent of the shortage. To frame a hard and fast rule in this case is a difficult one. The best apparently that can be done is to say that the consumption account should be adjusted in accordance with any necessary adjustments to the stock account, except where it is known definitely that the consumption account has not been affected, when the adjustment should be carried to profit and loss.

The general ledger account, controlling any subsidiary records of stock, would, where the direct method of ascertaining the consumption is in force, appear as follows:

MATERIALS AND SUPPLIES

Inventory, beginning.	$20,000	Consumption.......	$7,000
Purchases..........	15,000	Inventory, end......	28,000
	$35,000		$35,000
Inventory, new......	$28,000		

CONSUMPTION ACCOUNT

Materials and Supplies	$7,000		

The third method of arriving at the consumption it will be remembered contemplated both an inventory account and a purchase account. The inventory account would show the inventory at the beginning on the debit side with the inventory at the end on the credit side. At the time of placing the inventory at the end on the credit side it would be carried down on the debit side to constitute the opening inventory for the next period. The balance in the inventory account would be carried to the purchase account. The effect of this procedure would be to increase or decrease the purchases for the period, depending upon whether the inventory at the end were larger or smaller than at the beginning. The purchase account thus adjusted would be closed out to the manufacturing cost account or to the account for cost of goods sold. Using again the same figures as heretofore the accounts would appear as follows:

INVENTORY ACCOUNT

Inventory, beginning	$20,000	Inventory, end......	$28,000
Balance to purchases.	8,000		
	$28,000		$28,000

PURCHASE ACCOUNT

Purchases..........	$15,000	Increase in inventory.	$8,000
		Consumption........	7,000
	$15,000		$15,000

CONSUMPTION ACCOUNT

Materials and Supplies	$7,000		

The latter method just described is illustrated in the statement of income and profit and loss wherein, the section dealing with cost of goods sold, shows first the purchases and second the application of the inventory. This form of presentation is frequently difficult for the student to understand because of the terms used. Unless they be analyzed as to their meaning they strike one off-hand as being somewhat contradictory. The confusion seems to arise when the expressions add decrease of inventory and deduct increase of inventory are used. This point might be cleared up if one would stop to reason as follows: The cost of the materials and supplies consumed for the period is $7,000. This is represented by purchases amounting to $15,000, and an increase in inventory of $8,000, which is deducted from the purchases of $15,000. Why do we deduct the increase in inventory? Because of the fact that there has been consumed not the amount purchased, $15,000, but $15,000 less the $8,000, which remains unconsumed and appears in the inventory at the end of the period, $28,000. Conversely the same thing would be true. If the purchases for the period were the same $15,000, the inventory at the beginning being $28,000, and the inventory at the end $20,000, then the cost of the materials and supplies

consumed during the period would be $23,000, represented by purchases of $15,000 plus a decrease in the inventory of $8,000. This may be reasoned out by following the facts which show that while $15,000 worth of materials were purchased during the period, $8,000 worth more have been used and have been deducted from the inventory at the beginning of $28,000, making the inventory at the end $20,000.

It is to be noted that applying the difference in inventory method to the materials and supplies, goods in process, finished parts to complete goods in process and finished goods, taking into consideration any purchases, will give the cost of the goods sold during the period. To illustrate this let the following series of transactions be followed: Inventories at the beginning; materials and supplies, $10,000; goods in process, $40,000; finished parts, $8,000; finished goods, $75,000; purchases of materials and supplies, $20,000. Inventories at the end; materials and supplies, $5,000; goods in process, $12,000; finished parts, $2,000; finished goods, $34,000. The account with the materials and supplies inventory would show an opening balance of $10,000, a closing balance of $5,000, with $5,000 carried to the materials and supplies purchase account. This latter account, amounting now to $25,000, would be closed out to the goods in process account. The goods in process account, opening with a balance of $40,000, would show a debit of $25,000 for materials and supplies, a debit of $6,000 coming from the account for finished parts or total debits amounting to $71,000. The credits in the goods in process account would comprise $12,000, the closing inventory and $59,000 transferred to the finished goods account. The finished goods account would show an opening balance of $75,000, a debit of $59,000, credits of $34,000, covering the new inventory, and $100,000, which would be transferred to the account for cost of goods sold. If instead of tracing the transactions through the above named steps in the respective account the differences in inventories were to be carried direct to the cost of goods sold account, it would show various debits comprising difference in inventory of materials and supplies of $5,000, purchases $20,000, difference in inventory goods in process $28,000, difference in inventory of finished parts $6,000, difference in inventory of finished goods $41,000, or a total of $100,000.

Of the miscellaneous items found in this group of assets, such

as stationery and printing, postage, etc., comparatively little need be said apparently. In some concerns stock accounts are kept with those items and the amount chargeable to operations determined by requisitions issued. In other cases the amount chargeable to operations is determined by taking an inventory, placing upon it a value and charging off the difference in the account to operations. The materials and supplies, goods in process, etc., are of course closely related to cost accounting. These accounts serve as controlling accounts for the cost department, and where such department exists are usually supported by subsidiary records showing the details.

Possibly the most interesting phase of the discussion in connection with the inventory is the values at which items like materials and supplies, goods in process, and finished goods shall be carried. Some proprietors insist that they shall be carried at market prices. Some text-books advocate carrying them at cost except where the cost is lower than the market price, when they should be carried at the market price. It would seem that in order to be consistent one basis should be the rule in all cases. There is decided objection to carrying them at market prices or sale prices, when same is higher than cost, because of the fact that such procedure anticipates profits. Materials and supplies if carried at market prices may show either a profit or a loss when the cost of the materials and supplies is compared with the market price. What seems to be a fact is that materials and supplies on hand will be used in the product and not sold as materials and supplies if the market is above cost, or withheld from use and new supplies purchased if the market is below cost. It would appear to be a pretty good rule with regard to materials and supplies to carry them in the inventory at cost. Their value if the market is lower than cost may be shown on the balance sheet by opposing against the cost a reserve for decline in market values. Such procedure accomplishes two things. If the concern is ultraconservative and wishes to be exact, the true market value of the inventory is thus stated in the balance sheet, and at the same time the account for materials and supplies maintains its true relation to the details of which it is composed and continues to be a controlling account in the strict sense of the word. There is no objection and in fact it is considered more nearly correct to include

in the pricing of inventory of materials and supplies the inward freight, cartage, etc., applicable to the goods remaining on hand.

With goods in process the question of valuation becomes somewhat more complex. Such goods will include in addition to the materials and supplies the labor and certain portions of the manufacturing overhead. The question presenting itself in this connection is whether or not such goods shall be carried at prime cost, which includes merely materials and supplies and direct labor, or whether they shall be carried at manufacturing cost, which includes in addition to prime cost the manufacturing overhead. The latter basis is undoubtedly the more equitable, but if desired or indicated by ultraconservatism the overhead may be offset by a reserve which will have the effect in the balance sheet of carrying the goods at their prime cost.

Finished goods involve in their cost an item of general overhead which is comprised of the selling, administrative and other expenses. If it is equitable to carry goods in process of manufacture at manufacturing cost, then it would seem equitable also to carry the finished goods at selling cost. The objection to this lies in the fact that in so doing a portion of the general overhead expense is capitalized and such procedure is questionable. Theoretically it is correct to carry finished goods at selling cost. Practically it is objected to because of the fact that it shows as an asset a proportion of expense applicable to the unsold product. It is hard to say why a distinction should be made between deferring charges to operations for such items as insurance for the unexpired proportion thereof, whereas the expenses of a given period are all charged up against the product sold during that period, when a portion of such expenses must in the nature of things apply to product completed in one period and sold in subsequent period, which period will benefit in the matter of profit proportionately. It is probably true that in the case of a business in which the manufacture and sale of the product is uniform that it will not make great difference. Most authorities advocate carrying finished goods at manufacturing cost, but when it is desirable to maintain control over underlying records by carrying them at selling cost, both results may be accomplished by setting up a reserve on the balance sheet for the proportion of general overhead expense which the selling costs contain.

CHAPTER XIII

CURRENT ASSETS

Current assets will be remembered as those assets which are immediately available or which will become available shortly for the purpose of meeting current liabilities. Chief among them, of course, is cash, either in hand, on deposit, or in the form of working funds. Some of the others are accounts receivable and notes receivable. The group also includes accruals of earnings of every description, such as accrued interest on bonds, dividends receivable on stocks, accrued interest on notes and accounts receivable, etc. Separate accounts for each of these items will usually appear in the general ledger, although cash in hand and on deposits is frequently consolidated in the balance sheet.

Cash in hand is sometimes known as petty cash. Working funds are sometimes known as petty cash. There should never be any question as to whether or not an account for cash should appear in the ledger. It is to be presumed that a general ledger which has been posted up will permit of a trial balance being taken from it. This would not be possible if the ledger did not include a cash account and such exclusion would constitute a violation of the principles upon which a general ledger is run.

It is difficult to describe any fixed rule for the handling of cash and cash accounts. In some cases there will be but one account for cash in the general ledger. Under such circumstances all receipts and disbursements are put through one cash book and if there be petty cash accounts or other cash funds, books for such classes of items will be made subsidiary to the general cash book. This method of handling the cash is somewhat complicated. The debit side will show receipts of every description, whether deposited in the bank or not. The credit side will show disbursements of every kind, whether by check or in actual cash. The balance of the cash account in the general ledger will require for proof the adding together of the cash in bank and the cash in hand.

The scheme of classifying the cash and maintaining in the general ledger separate accounts for each kind or class is largely used. Where there is cash in bank, petty cash and working

funds, there should be separate accounts in the general ledger for cash in bank, petty cash and working funds. It is highly important that all cash receipts of whatever nature should be deposited in the bank. If such method be followed the general cash book will show only receipts on the one side and disbursements by check on the other side. The balance in the cash book will agree with the balance shown in the ledger and may be easily reconciled to the balance reported by the bank. For miscellaneous disbursements and the establishment of working funds checks should be drawn and the amounts involved charged to the respective accounts, namely petty cash and working funds. A separate cash book will be kept for petty cash which will show on the debit side only receipts from general cash or cash in bank and on the credit side actual cash disbursements. The balance in the petty cash book at the end of the month will agree with the account for petty cash in the general ledger after the posting has been made. Such a segregation makes it possible to control the petty cash and in reality it partakes of the nature of a working fund except that the amounts transferred from the general cash may vary from month to month.

A working fund or an imprest cash fund is a definite sum, adequate to meet the demand for disbursements which the volume of transactions during a definite period necessitates, and which will at all times if properly conducted show either actual cash, or cash and paid vouchers, agreeing in total with the amount set aside. Such provisions are frequently made for general cashiers, department cashiers, traveling salesmen, or other employees engaged in traveling, and branch office managers or cashiers. For example, suppose that the expenses of the Chicago office of a New York concern amounted approximately to $1,200 a month. In order that the manager of the Chicago office might at all times have ample funds on hand out of which to meet current expenses, it is probable that not less than $1,500 would be forwarded to him by check. This would constitute his working fund. The amount would be charged on the general ledger at New York to a Chicago fund account. The cashier of the Chicago office would from time to time, as he made disbursements, replace the cash with vouchers. At all times if his accounts were correct he should have $1,500, either in cash or represented by vouchers. At the end of the month when he made up his cash report he

would classify the expenses in accordance with instructions and forward it to the New York office. There would of course be an interval of a few days during which time he would have nothing to show for his disbursements except a copy of the report. He would, however, in effect have an account receivable from the New York office for the exact amount of vouchers which he had transmitted. Upon receipt of the report at the New York office it might be journalized, put through a distribution book or put through the voucher register. Regardless of how it was handled the expenses would be charged to the appropriate account and the amount of the disbursements credited to the Chicago fund account. A check would subsequently be issued for the amount of the disbursements to the Chicago office, thereby restoring the fund to $1,500.

The question sometimes arises as to whether the credits to the working fund account for disbursements and subsequent charges to the account in precisely similar amounts for reimbursements should be shown in the ledger account for working funds. It seems that this should be done if for no other than historical purposes. It is true of course that the account will show the amount of the fund as an opening item, with offsetting debits and credits each month, resulting in a balance representing the amount of the fund. This may appear to be of no value but it would seem to have the effect of showing that disbursements had been reported from time to time and checks for reimbursement had been issued. Working funds will usually be carried in the balance sheet as current assets.

Accounts receivable as a balance sheet caption may represent merely accounts with regular customers or it may comprise accounts receivable of every description. The accounts with customers will usually be represented by a controlling account supported by underlying ledgers, whereas occasion may require that separate general ledger accounts be opened with parties other than customers, who are indebted to the concern. The books for customer accounts vary in form and arrangement. The accounts are sometimes separated into several volumes for the purpose of facilitating the bookkeeping work, controlling individually the work of various bookkeepers, controlling certain classes of business, or certain territories.

For balance sheet purposes accounts are frequently classified

as good, doubtful and bad, and reserves are introduced to provide for the bad and doubtful ones. It is a matter of question as to how long an account should be carried before being considered bad. It is questionable further as to whether an account which is considered bad shall actually be charged off against the reserve until it is proven absolutely that the amount will not be collected. A good account may become tainted and doubtful. It may subsequently be declared bad and impossible of collection. Such a decision, however, is merely as a rule an opinion. Accounts which are undisputably bad may eventually produce something. A man who will not pay may be sued, a judgment secured and the amount collected, if he has anything. Sometimes a man would like to pay and cannot. Bankruptcy follows and the creditors receive a pro rata share of their claims in liquidation. In the writer's opinion an account should not be written off against a reserve until such time as a judgment has been returned unsatisfied or if the account is involved in bankruptcy where the final liquidation dividend has been received. Writing off accounts promiscuously frequently leads to trouble, for the reason that accounts written off may subsequently be collected and upon receipt of the money, if no record of the account has been kept, it may be appropriated by dishonest employees. If bad accounts are carried on the books and adequate provision is made in the reserve, it would seem to have the desired effect in so far as valuation is concerned and still preclude any possibility of writing off an account and having it subsequently collected without a record of the collection being made.

To pacify ledger clerks, or bookkeepers on underlying ledgers, accounts which are considered bad are sometimes transferred to a suspense ledger. This procedure has the effect of relieving the bookkeeper from including such accounts in his trial balance month after month and still makes it possible to preserve the record of the accounts until they are lost beyond question. Many concerns provide against losses on bad accounts by carrying credit indemnity or credit insurance, in which case a premium is paid the same as in the case of fire, life or other insurance.

As an asset a note is apt to be looked upon as better than an account. This opinion is questionable since neither is preferred over the other in bankruptcy proceedings or in liquidation. The main legal difference between a note and an account is that the

former in effect confesses judgment as to the amount and requires no further proof in this respect, whereas in bringing action to collect on an account all the items making up the account must be proven. Care should be taken to distinguish notes from bills. This distinction is made very clear in the New York negotiable instruments law which requires that the word note shall only be used for the purpose of describing a promissory note, whereas the word bill shall be understood to mean a bill of exchange, either foreign or domestic. A bill of exchange is a draft which in reality partakes somewhat of the nature of a check. It is a request addressed to party number one by party number two to pay a certain amount of money to party number three. If accepted by party number two it becomes in effect a note, except for the fact that it does not usually bear interest.

Notes may be interest bearing or non-interest bearing. In some cases the note will, for example, call for the payment of $1,000 on a certain date with interest at 6%. In other instances where it is the intention to pay interest on $1,000, instead of such sum being specified in the body of the note, it might call, for example, for the payment of $1,023.59 at a given date. It is important that notes should be scrutinized carefully in this respect on account of the effect which one or the other of these conditions may have upon the treatment of interest. If the balance in the account of a given customer is $1,000, and the customer remits in settlement of the account a note for $1,000 bearing interest at 6%, upon receipt of the note one entry only is necessary; a credit to accounts receivable and a charge to notes receivable. If, however, the end of the accounting period falls within the period covered by the time stated in the note, then in closing the books, cognizance must be taken of the interest on such note which has run from the date of the note to the end of the accounting period. The entry covering this accrual would consist in charging interest on notes receivable and crediting interest earned on notes receivable. When subsequently the note is paid with interest a somewhat more involved entry becomes necessary. The amount of cash received covers not only the face of the note, but the interest thereon. The amount involved will presumably be greater than the face of the note and accrued interest which was set up at the previous closing date. Therefore the payment in reality includes three things, namely, the face of the note which appeared

among the notes receivable, the amount of the accrued interest which was contained in the corresponding account, and an amount of interest which has as yet received no treatment so far as the books are concerned. Thus to cover such a transaction when cash is charged, the three accounts to be credited are notes receivable, accrued interest on notes receivable, and interest earned on notes receivable.

Where the face of the note includes the interest, the interest must be credited upon receipt of the note to the interest earned account rather than to the customer. In such an event care must be taken upon closing the books to see that the unearned proportion of such interest received in advance is properly set up. If a note for $1,030, dated June 1st and payable six months later appeared upon the books, at closing time provision should be made for the unearned proportion by deferring it to a subsequent period. When the note for $1,030 was received, presumably notes receivable were charged with $1,030, while the customer was credited with $1,000, and interest earned with $30.00. Upon closing the books on June 30th, 5/6 of the interest appears to have been unearned and the proper entry charging interest earned on notes receivable and crediting interest unearned on notes receivable would be in order.

The notes receivable are usually represented by a controlling account in the general ledger in which at times the accrued interest is included. It is thought to be better accounting, however, to use a separate account for such items so that as far as possible the notes receivable account will show nothing but the face of the note. Various forms of subsidiary records are in use for the purpose of carrying notes receivable, but whatever the form it is essential that they shall show the date, amount, when due, rate of interest, and the name of the maker.

Notes receivable are sometimes discounted. This happens as a rule when the holders are unable to wait for the notes to mature and be paid. The practice is sometimes indulged in for profit where the difference in interest rates is sufficient to warrant it. The taking of notes at 6% and discounting them at 4% will, if the volume of transactions is sufficiently great, produce quite a tidy sum in interest. This cause of notes being discounted is the exception, probably, rather than the rule. The principal reason for discounting them is usually the need for cash. The taking of

a note from a customer will result in a charge to notes receivable and a credit to accounts receivable. If later the note is discounted cash will be charged, and off-hand, it may appear that notes receivable would be credited. There would be no objection to this if a note were like merchandise and the transaction were complete with the passing of title. In the case of a note the promise of the customer to pay is supported by the endorsement of the concern which discounts it and in the event of the customer's failure to pay the note at maturity, the bank may hold the endorser. The possibility of such an event occurring makes liability in connection with the note a contingency. Hence we speak of the contingent liability for notes receivable discounted. Here then is the objection to crediting notes receivable when cash is charged. The objectors to so doing contend that an account called notes receivable discounted should be credited to show the contingent liability. This contention in turn is met with the objection that the notes physically have passed out of the possession of the company and will in nine cases out of ten never again come into the possession of the company. As a compromise a third method of treatment suggests ignoring each of the above methods in part and making mention of the fact that they are notes receivable discounted and outstanding, with the amount thereof, as a foot note on the balance sheet.

In the matter of showing notes receivable discounted on the balance sheet there is a choice of three ways. The first is to include on the right hand side of the balance sheet among the current liabilities an item for notes receivable discounted, giving it the effect of an offset to the notes receivable shown on the left hand side among the current assets. The second way is to withdraw from the current assets and show separately on the asset side, below the current assets the amount of the notes receivable which have been discounted, referring in parentheses to the contra account on the opposite side of the balance sheet for notes receivable discounted, which item will appear below the current liabilities. Both of these methods have the effect of showing the contingent liability in the balance sheet proper. The third method is to exclude from both the assets and liabilities the notes receivable discounted and refer to them in a foot note at the bottom of the balance sheet. The foot note might read as follows: "Contingent liability for notes receivable discounted and outstanding, $10,000."

The treatment of the interest involved in notes receivable discounted demands some little attention. To illustrate this point let it be assumed that there is received from the customer a note for $30,000, due in 90 days, and bearing interest at 6%. The interest on such a note would amount to $450. The note would stand on the books at $30,000, while no entry would be made until the end of the month for the interest. At the end of the month accrued interest on notes receivable would be charged and interest on notes receivable credited. If the notes were to be discounted after 45 days had elapsed from the date of its issue, assuming that the discount were figured by the interest method rather than by the true discount method, there would be received from the bank $30,225. This amount is really divisible into three parts, $30,000, $150 and $75. While the total of the three would be chargeable to cash, $30,000 would be credited to the notes receivable account, $150 to the account for accrued interest on notes receivable and $75 to the interest earned on notes receivable.

A slight variation of these steps would result if the note instead of bearing interest at 6% were to have the amount of interest included in the face. Thus upon receipt, notes receivable would be charged with $30,450, and $30,000 would be credited to the customer and $450 to the interest on notes receivable. At the end of the month interest on notes receivable would be charged and interest unearned on notes receivable credited with $300. If as in the preceding instance the notes were discounted 15 days later and realized $30,225, cash would be charged with $30,225, notes receivable would be credited with $30,225, but an adjustment would be necessary between the notes receivable account and the interest unearned on notes receivable in order to close out the difference remaining in the notes receivable account of $225. This could be most easily accomplished by an entry which would charge interest unearned on notes receivable with $300 and credit notes receivable with $225 and interest on notes receivable with $75. For practice purposes complications may be introduced in both of the above mentioned instances by taking the interest on the notes at one rate and the discount at another rate. It is thought that sufficient time has been given to this topic so that no further illustrations on this point will be indulged in.

CHAPTER XIV

PATENTS, COPYRIGHTS AND TRADEMARKS

The topics suggested by the subject of this chapter are frequently considered along with goodwill. They seem, however, to be of sufficient importance and so unlike goodwill as to warrant a discussion apart from that subject. It frequently happens that where a concern is taken over by a corporation, the capital stock issued for the net assets of the concern does not equal the value placed upon the net assets. The amount of capital stock may be greater or less than the net assets. Where the capital stock is smaller in amount it need not be considered for the purpose of this discussion. Where it is greater it will give rise to a difference on the asset side. This difference may be absorbed by a revaluation of the assets but it is frequently termed patents, copyrights and goodwill. This practice is to be censured unless such assets actually exist and are reasonably worth, in the opinion of the directors, the value thus assigned to them. Goodwill merits separate consideration and will be taken up later. The things of interest concerning patents, copyrights and trademarks are their nature, how much they are worth when they are acquired, whether or not they may increase in value during their existence and how long they may be carried at the original or at the increased valuation.

A patent is an instrument issued, by the federal government through its patent office, to an inventor, protecting him against the possibility of having some other person make, use, or offer for sale a similar device, machine, manufacturing process, or composition of matter. Patents are issued for a term of seventeen years and may not be renewed except by an act of Congress.

A copyright is an instrument issued by the federal government through a bureau under the control of the librarian of Congress, whereby an author or artist is granted the exclusive right to publish and dispose of his work for a limited time. A copyright runs for twenty-eight years and may be renewed for a period of twenty-eight years.

A trademark is an instrument granted by the federal government to citizens of the United States, who, by registering in the

patent office certain designs, insignia, symbols, marks, names, or other characteristic indications whereby their goods are identified and advertised for sale, are protected against the use of same by others. The registering of a trademark carries this protection until terminated by abandonment, discontinuance of business, or similar manner.

The cost of securing a patent, a copyright, or registering a trademark is nominal and bears no relation whatsoever to the value of either of these forms of protection. That they are valuable at times is undisputed. To determine their value is a different matter. In the case of a growing concern which does not contemplate a change of any kind it may be perfectly satisfactory to carry these items at a nominal value or even not carry them at all. If a change in the ownership is about to take place the owners will, as a rule, wish to place a value upon them. It is also possible that even when no such change in ownership is anticipated, the concern owning such instruments may wish to value them. There are two means of accomplishing this purpose. One is to place an arbitrary value upon them. The other, which is the more scientific, is to capitalize what may be considered as excess income, or the income attributable to these agencies. For example, a concern, the combined capital and surplus of which is $100,000, earns $9,000 per year. It has earned 9% upon the investment. Assuming that 6% is the average return on investment in the line of business in which the concern in question is engaged, then it is clear that there is excess income of $3,000, which is to be attributed to some cause or other outside of the normal agencies which produce income. If there are either patents, copyrights or trademarks in existence and in use, what would seem more feasible then than to attribute the excess income of $3,000 to the possession and use of these special assets? On this theory the excess income is capitalized at 6% and $50,000 set up as the value of the special assets in question.

Irrespective of the basis used in valuing patents, copyrights and trademarks, a valuation once placed upon such assets is subject in some events to extraordinary fluctuation. Patents which are effective today may be so closely approximated even without infringement within a short time as to render the protective feature almost worthless. In a corresponding manner, copyrights while their life extends over a considerable number

of years, cover as a rule publications, the sale of which is limited and soon over. Thus while the sale of a book might be protected for forty-two years, in a comparatively short time in many instances there is nothing to protect. The value of trademarks probably continues longer and with greater stability than either patents or copyrights. However, it is not an unusual thing to have the sale of an article damaged by a similar article, sometimes with a trademark just sufficiently different so as not to violate the law, sometimes with a different trademark when the goods are of a cheaper grade or quality and sometimes when the same condition exists without any trademark. For these various reasons it would seem that if assets of this character are set up at all, they should be written down either gradually or within a short space of time. Probably no exception can be taken to the plan of writing them off over the term of years specified by the instrument, but it would certainly seem to be better policy to write them off as rapidly as possible if acquired by purchase and to carry them at a nominal value if acquired by issue.

A concern which acquires patents by issue has a choice of valuing them and carrying them in three different ways. They may be set up at a nominal value which usually means carrying them at $1.00, at an arbitrary value, or at a value based upon the earning power. Obviously if carried at a nominal value the question of writing them down does not arise. If they are set up at an arbitrary value or on the basis of their earning power, they may be written down or provision made for their depreciated value over a period of seventeen years. This theory is of course based on the fact that they continue in force and effect during this period.

A condition may arise here, however, which is analogous in its effect to that which a new machine has upon depreciation. The life of a machine may be fixed at twenty years and arrangements made to provide for its depreciation over that period of time. If, however, the type of machine suddenly becomes obsolete and is replaced by a machine of a newer type, then its loss in value becomes suddenly great and the net value which is in reality its book value less what it is worth as scrap must be immediately written off. In the case of machinery, however, it is not always the scrap value which is taken into consideration in fixing a

value on the residue, but rather its value as a second hand machine. A machine which would be obsolete so far as its use in the United States Steel Corporation is concerned might be valuable to some manufacturing concern organized on a smaller scale and doing business in some small manufacturing town. If such machines were sold the residual value would be the price at which they were sold rather than their scrap value, and in writing them off, the sale price rather than the scrap value would be the amount deducted from the amount to be written off.

The analogy between machines and patents in respect to their valuation is to be considered only up to a certain point. A patent may be effective for seventeen years or it may become ineffective or partially ineffective as a protecting agency at almost any time. Manufacturer "A" may own a very valuable patent. It may entitle him to make, use, or sell some new and useful machine, manufacturing process, or composition of material. Manufacturer "B" may appear upon the scene with a similar design and although similar, sufficiently different to enable him to secure a patent without infringement, which device may be so much more up-to-date and eagerly sought after by the trade as to render practically valueless the patent of manufacturer "A." Even if it does not have the effect of destroying the value of the first mentioned patent, it may make competition so keen as to modify greatly the protective benefits which formerly accrued to manufacturer "A" by virtue of the patent which he held. Thus having carried his patent either at an arbitrary value or at a value fixed by its earning power he is confronted with having to write down the asset either wholly, or in a large measure depending upon the extent to which the value of his patent as such has been impaired. There is no residual value in this case as in the case of machines. The patent has no value as scrap and naturally if it is of no value to the present owner it will presumably have no sales value. Thus conservatism would dictate against the policy of attempting to carry patents at arbitrary or scientific values on account of the contingencies which may suddenly arise.

The above remarks would seem to be equally applicable to copyrights and trademarks. In the latter case, however, there seems to be less possibility of these contingencies arising and

stronger arguments in favor of carrying trademarks at other than nominal values.

A concern which purchases or acquires patents, copyrights or trademarks from previous owners is in a somewhat different position. Such concerns having acquired these assets in exchange for value may reasonably argue that the value is what such assets cost to acquire. The policy of writing them down will depend of course upon the judgment or desire of the proprietor, but the period over which the depreciation should be spread will be covered in the respective instances by the life of the instrument. Obviously he is entitled to spread the depreciation over the life of the respective instrument, but the conservative proprietor will write them off as rapidly as the business permits in order to insure himself against any contingencies which may detract suddenly from the value of the assets.

REFERENCES FOR COLLATERAL READING:

Patents as a Factor in Manufacturing, Prindle.

Science of Accounts, Bentley, pages 199, 200.

Accounting Practice and Procedure, Dickinson, page 79.

Auditing, Theory and Practice, Montgomery, 129, 130, 337. 397.

CHAPTER XV

FRANCHISES

A franchise is an instrument granted by the government to individuals, corporations, or other types of legal organization, giving to such organization the exclusive right to transact specific lines of business within specified limits for a given number of years, or to use certain natural resources of the country, in consideration of certain sums of money, payable either all at one time or in installments. In brief a franchise is a contract between the government and some legal type of organization covering the above mentioned rights.

Franchises may be granted by the federal government, the states, counties or municipalities. The most common purposes for which franchises are granted are steam railroads, street railroads, telegraph and telephone systems, water systems, gas and electric light systems, power plants. They may also include the rights to obstruct water ways for reservoir purposes; the rights to use water falls and in fact the right to use any property which the government owns.

It would probably not be wrong to include among the franchise, rights for minor purposes such as the use of the streets for vending purposes or the right to sell merchandise upon the streets or from house to house. This form of franchise is looked upon in a different manner and the recipient of such right pays what is known as a license. The privilege conferred upon him in return for the tax which he pays is of a restrictive nature as a rule, and can scarcely be considered as an asset since such rights are usually granted to all persons who are able to pay the license tax.

The distinguishing feature between a license and a franchise would seem then, to be, that while in the former case the privilege is granted freely to all who apply; in the latter it is granted only to one organization, and thereby resembles a monopoly. By virtue of having acquired a monopoly the holder thereof is enabled as a rule to make larger profits. It is probable that a vendor selling knickknacks on the street would not consider his license as an asset. He would more properly consider it as ex-

pense of doing business. On the other hand a street railway company holding a franchise whereby it was permitted to construct and operate a system of tracks and cars in and about a given city, would be quite justified in considering the franchise as a very valuable asset. That franchises are considered as valuable assets which permit the holders thereof to operate to the exclusion of all others is evidenced by the fact that a tax is imposed upon the corporations or individuals holding them. That it is difficult to determine the value of a franchise may be seen from the litigation resulting in the attempt of the State of New York to impose a franchise tax upon certain corporations operating within the state.

From an accounting point of view the matter of valuation is the principal point to be considered. If the franchise is acquired by direct grant it would seem that the matter of determining its value should be decided by what it is worth. It is worth what it will produce in the way of excess income. Such income it would seem should be measured by the monopoly profits which it brings in. To determine the monopoly profits is to compare the total profits in a given case with the normal average profits of a similar type of system.

Assuming in a given case that the net assets of a corporation owning a franchise are carried at $1,000,000, such net assets being represented by the capital stock and surplus, and producing income of $300,000 per annum. It may be further assumed that the income consistent with the kind of organization in question is 10%, or $100,000. Comparison of the normal profits with the profits of the monopoly shows an excess of $200,000, due it may be assumed, to the franchise which the company holds and which amount may be considered as the monopoly profits. If the profit of $200,000 is due to the fact that the company holds a franchise, then apparently the franchise is worth what it will produce in the way of monopoly profits and should be capitalized at $2,000,000, or $200,000, divided by 10%.

In attempting to capitalize a franchise in this manner care should be taken to consider any amount or amounts which the company has paid or will have to pay for the franchise and the difference only in any case set up as the value of the asset. To illustrate this it might be supposed in the above mentioned case that the company paid $150,000 for the franchise at the time

it was acquired. Under such conditions the $150,000 would be excluded from the net assets when determining their amount and in view of the fact that $150,000 would probably already appear on the books the difference only between such an amount and the new amount should be added. As used above, $1,850,000 would be added to the $150,000 appearing on the books, making the book value $2,000,000. If for example the company were to pay $50,000 a year for the franchise then $50,000 should be deducted from the $200,000 before capitalizing it at 10%, so that in this case the franchise would be valued at $1,500,000.

In both of the above cases the element of time appears and should be taken into consideration in the accounts. A franchise granted for any time less than perpetuity, is theoretically a wasting asset. Its value would be affected by the period of time for which it is granted. It is quite plain that a franchise granted for ten years unless renewable, is of no value at the end of the tenth year. A provision therefore should be made for depreciating its value either by writing it down or through the medium of a reserve; preferably by the latter method. The rapidity with which it is written off will depend upon the life of the franchise.

If a franchise is acquired from a former owner the matter of its valuation may differ from the cases above referred to. Where acquired by purchase rather than by direct grant they may be carried at cost, valued as above indicated, or carried at an arbitrary value. They are many times treated the same as patents, trademarks, goodwill, etc., and made to represent the difference between the net assets of the old concern and the capital stock of the new concern. This is to be objected to because of the reason that it does not usually represent the fact, but is merely an expedient for making the books balance. Under any circumstance provision should be made for depreciating such assets in accordance with the life of the franchise.

REFERENCE FOR COLLATERAL READING:

Engineering Value of Public Utilities and Factories, Foster, Chapter XII.

CHAPTER XVI

GOODWILL

In discussing goodwill, it will be necessary to say something about the meaning of the term, the origin of goodwill, its valuation, its duration and its disposition.

By goodwill is meant, that intangible possession or qualification which is capable of producing recurring income or by virtue of which recurring sales may be made. It is the influence which the proprietor or his organization has upon the purchasing public through which he is enabled to attract and retain patronage. In some cases it may be the power of controlling certain patronage. It is that peculiar power of attraction whereby the proprietor causes the buyer to seek him or his place of business when in the market for the kind of goods which the proprietor has for sale.

Goodwill may be due to one or more of several causes. Possibly the manner of the proprietor or his sales force may be pleasing. Politeness, patience and general efficiency on the part of employees are important factors in the establishment. The uniform quality of goods, variety from which to select, and the privilege of returning goods which are unsatisfactory are all things which appeal to many customers and make them feel kindly towards the merchant. Honest goods and honest prices have built up many a business. Among other contributing causes may be mentioned, easy terms, attractive display of goods, attractive advertising, a level of prices slightly under the average, good location, facility with which goods may be found, permanent location for goods, and lastly, general reputation. One of the oldest and largest department stores in New York City is probably not only losing goodwill but gaining ill-will through a recently introduced policy of frequently shifting goods from one part of the store to another. On the other hand, in a city like New York, general reputation has a great deal to do with the promotion of goodwill. A stranger coming to New York to live is undoubtedly influenced by a friend or acquaintance in favor of stores which have reputations for certain things. Most housekeepers in New York will tell you that for general trading

a certain Fifth Avenue store is unsurpassed, while for muslins a Fourteenth Street establishment stands at the head.

Measuring goodwill, or placing a value upon it, is a much more difficult task than either defining it, or discussing the causes underlying its creation. The occasions for valuing it are practically three: to reduce the rate of return on capital investment; to dispose of it by sale or consolidation; to give a proper value to an established business before the admission of a new partner.

In connection with the first, a proprietor with a small capital investment might by means of goodwill be enjoying profits out of proportion to his nominal investment. The ratio of return to nominal capital might be abnormally high. For business reasons it might be to his advantage to increase his capital in accordance with the goodwill acquired and thus decrease the ratio of return to investment.

In the same manner, a corporation might find it advantageous to reduce the apparent return on its capital stock by setting up goodwill and distributing the surplus arising therefrom through a stock dividend.

In the second case, a concern about to sell out, to consolidate with another concern or to incorporate may very justly and reasonably wish to capitalize its goodwill.

In a similar manner a concern into which a partner is about to enter will undoubtedly value its goodwill before coming to an agreement with the new partner if he purposes buying an interest in the business.

As to the methods of placing a value upon the goodwill in any case, it must of course be admitted that in many instances the figures representing it show price instead of value. Such price may be fixed at what it is expected the prospective purchaser will be willing to pay. This is not placing a value upon it. There are two scientific methods of valuation generally in use. They are widely divergent and the application of the two methods to the same figures produces surprisingly different results. Both have as their basis of calculation what is known as the excess income.

It is conceded that every proprietor receives a certain normal share of trade in the line in which he is engaged. The normal share is assumed to be that which will yield him the average return on his investment. The average return for the line of

business in question is perhaps six per cent. Any excess above 6% which the capital, or capital stock and surplus, will produce is attributed to goodwill.

To illustrate the first method, take as an example The Jones Manufacturing Company, engaged in the retail cloak business with a capital of $1,000,000. Such a concern might be imagined as having profits of $78,000 for the year. By net profits is meant the sum available for distribution as dividends, or the amount to be credited to surplus after every known charge except dividends has been deducted from the income. Ordinarily perhaps, the capital would be expected to yield but $60,000. The excess of $18,000 is attributable to goodwill and the capitalization of this amount at the average rate of interest determines the value of the goodwill. More specifically dividing $18,000 by six (6) per cent gives as a result $300,000. It would not be advisable to use for this purpose the excess income of one year, since the income might have fluctuated considerably. The average excess income of periods extending from three to five years would seem to be a more conservative basis, although periods less than a year have at times been used.

The second method while based on the excess net income, proceeds in a manner quite different from the former method. It should be pointed out that the results obtained by the second method would theoretically be of value only where the sale or similar disposal of goodwill was involved and would not serve as a basis for adjusting the rate of return on investment. The factors are, an estimated excess income, recurring annually for an estimated number of years. For example, in the case of The Jones Manufacturing Company, the excess income was $18,000. If it might be estimated that the goodwill could be sold and conserved for a period of ten years, the value would appear to be, ten times eighteen thousand dollars (10 x $18,000) or $180,000. This conclusion is based on the assumption that the goodwill would continue to yield annually for a period of ten years an excess income of $18,000. This is capitalizing, without regard to interest, by what is known as the years' purchase method.

As a means of valuing goodwill this method seems fundamentally wrong. It looks too much like valuing the estimated productivity of the "hen which lays the golden eggs" without

giving any attention to the hen. Who would think of saying that the value of a twenty year gold bond of $1,000 paying interest at 6% per annum was $1,200, because there were twenty interest payments of $60 each? On the other hand, who would say that the value of a piece of property estimated to produce $600 per year for the next five years was $3,000? Would it not be more logical to consider such a piece of property worth $6,000 since real estate ordinarily nets 10% on the investment?

If the method were allowed to pass without attack from this standpoint it should be criticized unless scientifically applied. Such application would consist in finding the present worth at x% of an annuity of $18,000 for ten periods. It will thus be seen that at 6% the computation would give as the value of the goodwill an amount of approximately $132,481.

The duration of goodwill is a variable quantity. To fix the time during which it will continue to produce excess income is a difficult task. Without a change of ownership even it may continue or it may dwindle depending upon the attention which is given to the basic factors upon which it was built. Under new ownership and changed conditions it may be conserved and increase in value or it may be lost in a short time. The chances that its value will not diminish are greater if it is not sold.

In case of sale it may be of interest to note its treatment from the accounting standpoint of both the vendor and vendee and ultimately its disposition by both. The valuation of goodwill having been placed upon it previous to the sale, when the deal has been consummated it loses its identity so far as the vendor is concerned and becomes merely an item in the group of assets upon which the selling price was based. That portion of the amount realized on the sale which corresponds to the goodwill would, in the failure to raise an account on the books of the vendor for goodwill, appear as so much profit arising in connection with the sale. It would probably more nearly represent the facts, in the case of a corporation, if two accounts were to be created on the books of the vendor prior to sale, one for goodwill, which would be debited, another for capital surplus, which would be credited. Subsequently the capital surplus would be apportioned to stockholders, whose holdings would then represent the amount which each should receive upon distribution of the proceeds of sale.

The vendee is now in possession of an asset in exchange for which he has parted with value. No matter what the moral right to carry accumulated or created goodwill prior to sale may be, obviously he is entitled to show it on his books and in his balance sheet. In doing so, however, he is morally bound to show it at its cost to him; that is to say, at the value fixed upon it by the terms of the sale. A corporation is not warranted in setting up an account for goodwill which represents the difference in value between the net assets and the capital stock. For example, in a case where physical assets at an appraised value of $90,000, were taken over subject to liabilities of $10,000 and capital stock in the amount of $100,000 was issued for same, the corporation is not justified in charging the difference of $20,000 to an account called goodwill merely for convenience. That this is frequently done may be seen by reference to the balance sheet of almost any large industrial merger where such accounts as "patents, goodwill and franchises" or "trademarks and goodwill" are usually to be found. Such practice has given rise to a distinction being made as between real and nominal goodwill, or "fictitious" goodwill, as the latter is more commonly called. Nominal goodwill constitutes one of the elements in corporate organization, which is known as "water."

As to the disposition of goodwill authorities differ. Most Americans consider it as an asset of diminishing value. English authorities are divided in their opinions; some of them favor writing it off over a period of years; others advocate its continuance at the cost price irrespective of fluctuations in its value. It is to be borne in mind that it may appreciate in value and the question arises as to whether or not it should be revalued annually. The tendency in the value is to decline and the safest policy to adopt would probably be to make provision for a reserve to offset the item of goodwill, the annual amount of the provision depending upon the number of years which the most conservative estimate would fix as its life.

REFERENCES FOR COLLATERAL READING:

Good-will and Its Treatment in Accounts, Dicksee and Tillyard.

Accounting in Theory and Practice, Lisle, page 134-135.

Accounts, Their Construction and Interpretation, Cole, pages 276-280, 307-310.

Modern Accounting, Hatfield, Chapter VI.

Auditing, Theory and Practice, Montgomery, pages 131, 338-630.

CHAPTER XVII

FUNDS

A fund should without exception be understood to mean an asset. We think about funds as meaning cash, but we can no more say that all funds are cash than that all cash belongs to funds except with the introduction of the qualifying statement that cash as we have come to look upon it in connection with the balance sheet is a general fund available for the purposes of the business.

Funds are not reserves. A reserve is never a fund. A reserve may be created for the purpose of measuring or controlling a fund, but it is always in the nature of an accountability. Funds should always be on the left hand side of the balance sheet. Reserves except when treated as deductions should be on the right hand side of the balance sheet. A fund is sometimes described as a reserve fund, and in fact by some people it is given the erroneous name reserve. A fund may be set aside for certain purposes designated by a reserve. This operation is sometimes known as the funding of a reserve. This, however, does not have the effect of making it a reserve.

The point, however, upon which emphasis is to be placed is that funds are always assets. They may be classified as general funds and special funds. When used in the first sense, cash in hand or on deposit and available for general purposes, or unrestricted cash, is meant. In the second instance the meaning is the exact opposite. A special fund emphatically denotes that such funds are not available for the general purposes of the business and are sacred to the purposes for which they were set aside. It is true of course that when the purpose for which they were intended has been accomplished, any balance remaining may be transferred back to the general cash, whence it presumably came. The use of the term special fund is not intended to include such items as working funds or petty cash funds, these representing merely the setting aside for convenience of a portion of the general cash. The classification does embrace, however, sinking funds, special funds such as were set aside by the gas companies in compliance with the ruling of the court in

the matter of 80 cent gas, pension funds, emergency funds for accidents and illness of employees, insurance funds and contingent funds, etc.

The basis upon which funds are created will depend upon the circumstances. At times they may be accumulated by the arbitrary setting aside of fixed amounts periodically. They may be accumulated by the setting aside of arbitrary amounts varying in size from time to time. They may be created by setting aside a fixed sum for a given purpose like the amortization of some indebtedness, as in the case of a sinking fund for the purpose of paying off bonds at maturity, where the terms governing the setting aside of the sum are prescribed by the instrument of indebtedness.

In cases like the emergency fund and contingent fund above mentioned it is probable that the amounts would be set aside spasmodically or at the convenience of the business. Funds such as the public service gas fund would be regulated by the rapidity with which collections were made from customers. Such a fund would accumulate automatically. Insurance funds would probably be set aside semi-annually or annually and the amount would be determined by the premiums which the concern would be obliged to pay to the insurance company in order to carry adequate insurance on the property. Sinking funds on the other hand would accumulate by the setting aside periodically of fixed amounts, sometimes monthly, sometimes quarterly, sometimes semi-annually and sometimes annually. The periods and amounts are usually fixed by the mortgage which secures the bond. The sinking fund deposit might be determined by the term of the bond and the amount necessary to liquidate the liability at maturity prorated over the life of the bond. Another manner of accumulating the sinking fund is to set aside semi-annually or annually such a sum as will at compound interest amount at maturity to the face of the bond.

In all cases where funds are involved there is also the question of interest. The question becomes one of whether the interest attaches to the fund or to the general cash, thereby becoming available for general purposes. The earnings from funds are usually credited to income. The alternative is to credit them to a reserve account. If they are credited to income it has the effect of making the complementary asset available for

general purposes. If they are treated as a reserve it prevents the use of the asset for current purposes. In the case of straight funds, it is thought to be better unless otherwise provided to credit the income from the funds to the operations and make the interest received available for general use. Where the interest received is to be made a part of the new deposit for sinking fund purposes, obviously the income should be credited to a reserve. The effect, however, is the same as creating a reserve for a sinking fund out of earnings, since such reserves ultimately revert to the surplus.

To illustrate the creation of sinking funds by the scientific method and show the relation which the interest earning bears, let it be assumed that the American Cigar Company issued on January 1st, 1908, bonds to the amount of $1,000,000, payable January 1st, 1910, with interest at 6%, payable semi-annually. Let it be further assumed that the bonds provide for a sinking fund to be accumulated by semi-annual deposits for the purpose of liquidating the bonds at maturity and that the interest allowed by the depository on sinking fund deposits is 2%. The two questions which present themselves are, first, what amount shall be deposited in the sinking fund semi-annually, and second, what disposition shall be made of the earning which attaches to the interest on the sinking fund deposits.

The amount to be accumulated for liquidation purposes is $1,000,000. The periods involved are four, since the deposits are made semi-annually. With regard to the sinking fund payments, there must first be determined what amount or annuity must be deposited at the end of each period of six months, so that at the end of two years the accumulation of deposits and the interest thereon will amount to $1,000,000. No attempt will be made herein to explain the formula whereby the proper amount is arrived at, since tables showing the amounts are always available for use. If information as to the formula is desired, Sprague's tables of compound interest may be consulted. These tables show that the amount to be deposited at the end of each of the four periods is $242,623.75. This amount if deposited four times would result in an aggregate of $970,495. This noticeably is less than $1,000,000, and the difference of $29,505 is presumably made up of the interest on the deposits. The first question which will probably arise in the mind of the reader is whether the de-

posits begin on January 1st, 1908, or on June 30th, 1908, and in order to have this clearly established a study of the following computations will prove beneficial.

$242,623.75	First deposit, June 30, 1908
.02	
$4,852.4750	Interest to January 1, 1909
242,623.75	
$247,476.2250	Fund, January 1, 1909
242,623.75	Second deposit, January 1, 1909
$490,099.9750	
.02	
$9,801.999500	Interest to June 30, 1909
490,099.975	
$499,901.974500	Fund, June 30, 1909
242,623.75	Third deposit, June 30, 1909
$742,525.724500	
.02	
$14,850.51449000	Interest to January 1, 1910
742,525.7245	
$757,376.23899000	
242,623.75	Fourth deposit, January 1, 1910
$999,999.98899000	Fund, January 1, 1910

Interest	*Deposits*
$4,852.475	$242,623.75
9,801.9995	4
14,850.51449	$970,495.00
$29,504.98899	

Deposits............................	$970,495.
Interest............................	29,504.98899
Fund............................	$999,999.98899

From the above it will be noted that the first deposit was on June 30, 1908. The amount deposited at that time bore interest

at the rate of 2% from June 30, 1908, to January 1, 1909, at which time there was added to the original deposit, a second deposit in a similar amount and the interest for the six months just past. The aggregate of these amounts then became a new principal, which in turn bore interest at 2% for the six months ended June 30, 1909, and so on throughout the period of time covered. If the various amounts of interest which accrued on the deposits are segregated from the computation they will be seen to amount to $29,504.98 and a fraction, which practically agrees with the amount of interest determined by deducting four times the sinking fund deposit from $1,000,000.

The fund it will be noticed was derived from two sources, one the general cash of the company, the other, the interest paid by the depository. The deposits made by the company were charged to the sinking fund and credited to general cash. The interest was reported by the sinking fund simultaneously with a credit to an interest earned account. The disposition of the interest earned account now becomes the subject for discussion. There are of course three possibilities.

The first is to take it into the earnings of the company as other income. This procedure seems objectionable because of the reason that the cash corresponding to the earning is included in the sinking fund and on account of being applied in part to the liquidation of the bonds outstanding it is not available for general disbursement.

The second possibility is that of crediting it to a reserve account for interest on sinking fund. This account would gradually accumulate a credit balance until at the end of the second year it showed $29,505. At the time the bonds were liquidated the reserve would apparently be liberated and would revert to surplus. Thus it is difficult to see what, if any, purpose has been accomplished by accumulating this reserve.

The third possibility is that of crediting the interest earned to the interest paid account. It is to be remembered that these bonds bore interest at the rate of 6%. In other words, the company paid for the use of $1,000,000 for a period of two years, $120,000. By virtue of having put aside in a sinking fund stipulated amounts from time to time, the company has been deprived of the use of the money, which, however, has earned $29,505. It would thus appear that the expense to the company for the

proceeds of the bonds actually available for use should be determined by an amount representing the difference between the interest paid on the bonds and interest received on such funds. If this application of the earnings were made to the interest paid for the use of the money, the expense to the company would be $90,495. This last method it must be admitted seems the more logical and equitable.

The relation of sinking funds to reserves will be discussed in the chapter dealing with reserves.

REFERENCES FOR COLLATERAL READING:

Accounts, Their Construction and Interpretation, Cole, pages 87-89.

Science of Accounts, Bentley, pages 178-180.

Auditing, Theory and Practice, Montgomery, page 136.

Accounting Practice and Procedure, Dickinson, page 148.

Journal of Accountancy, Vol. VI, pages 394-439; Vol. VII, pages 58, 185, 406.

Modern Accounting, Hatfield, Chapter XIV.

CHAPTER XVIII

DEFERRED CHARGES TO EXPENSE

The items in this group are variously referred to as deferred assets, deferred debits, deferred charges to operations and deferred charges to expense. They have also been referred to as "assets by courtesy." Rather more stress should be laid on the nature of these items and their significance than the name by which they are designated. If we are to be precise we shall probably call them deferred charges to expense, since this term seems most accurately to describe them. They are expense items wherein the act of charging them to expense accounts, which accounts will be in turn closed out to profit and loss, has been deferred to a subsequent period giving to them the effect of assets. This group comprises insurance, taxes, rent, advertising, organization expense, development expense, moving expense, etc.

It is quite usual to look upon these items as in the nature of prepaid expenses. They may be prepaid in many cases. However, it should be pointed out that the matter of prepayment does not enter into the proposition. They are to be considered as assets if the corresponding liability has been taken up whether or not it has been paid. There is no uniform rule for handling them, neither is there any uniform rule for writing them off. In some instances such as insurance, taxes, rent and advertising, the period which they cover is defined. In other cases such as organization and development expenses the period covered is undefined and must be arbitrarily fixed. They are usually prorated over a period of time, but there are cases where their valuation is governed by circumstances such as whether the concern in question is a going concern or one about to be wound up.

There are two ways of handling deferred charges to expense. One is to provide in each case two accounts, one for assets and one for the expenses, and sometimes a third account for the reserve. At the time of closing the books the asset account is either written down to the expense account or the expense account charged and the reserve account credited. The other method consists in treating them as the expense accounts. At closing time the balance of the unexpired assets is treated as

an inventory and applied to the expense account thereby converting it into an asset through the inventory, which is brought down while the balance in the account is closed out to profit and loss. The first named method is the clearer of the two and is to be preferred. It is clean cut at all times and greatly facilitates efficient work.

With regard to insurance the amount shown as the asset is the premium on the policy. It matters not whether the premium has been paid so long as the invoices for same have been received and the amount is included among the liabilities. Here the period covered is defined by the policy. It may be for three years, or for one year or a shorter period of time. Arrangements should be made to write off the premium over the life of the policy charging to each period's operations or expenses its prorata share. For example, if on January 1st a company insures some of its property and the premium on the policy is $1,200, there should be charged off to expense each month $100. It is not customary in the case of insurance to create a reserve. The preferable method is to charge expense or insurance and credit insurance premiums or unexpired insurance as the title of the account appears.

The procedure is comparatively simple in the ideal case just mentioned. It would become somewhat more complex when there are a great many policies in force covering different periods and maturing at different dates. There is not much help for this complication if the company closes its books monthly, quarterly or semi-annually, but it may be avoided if the books are closed but once a year by arranging to have policies written for one year or fractions thereof and having them all expire, for example, on the 31st of December. This last mentioned practice is somewhat helpful even when policies are written for periods greater than a year.

In many concerns the question of insurance is of sufficient importance and the policies so numerous as to warrant the keeping of an insurance register wherein the policies are entered with their descriptions and columns are provided so that the amount of the premium can be prorated and the amount corresponding to each month shown in the appropriate column. Thus it becomes possible to determine by footing up the various columns the amount for all premiums chargeable to expense each month.

Care must be exercised in this as in other cases to see that cancellation and return premiums are properly prorated and deducted. This is very often accomplished by using red ink and making the entries either above or below the original entries.

The question of cancellation brings to mind the basis upon which such cancellations are made. A premium of $1,200 covering insurance for a year, if cancelled at the end of six months will not result in a refund of $600, although such would seem reasonable. The insurance company considers that it is entitled to a higher premium for carrying a policy six months than for carrying it a year. Accordingly if a policy as above mentioned were cancelled at the end of six months the company would only allow what is termed the short rate, and which in the case of the policy in question would be $360. Short rate tables are issued by the National Board of Fire Underwriters and show the short rates on amounts from $1.00 to $1,000 for periods up to twelve months.

The question may be asked after the above statements, "Is it proper and consistent to carry the unexpired insurance on the pro-rata basis?" The point is perhaps debatable. If it is true that after one-half the period covered by the premium has expired the company will not return the other one-half if the policy is cancelled, then the unexpired proportion would seem not to be worth one-half of the amount paid, but a somewhat smaller amount. In order to substantiate this valuation it is necessary to introduce the everlasting hypothetical question, "what would the policy be worth if the company were to cancel it?" Were the "if" in this case to be considered the policy should undoubtedly be valued on a short rate basis. In view of the fact that the company expects to use the insurance and not cancel the policy, the expense of the policy will be proportionately less on account of the long time and the unexpired proportion worth more. Practice dictates the use of the latter method.

There is one exception to the foregoing rule of which cognizance should be taken. It will be noticed that mention was made in the preceding paragraph of the fact that the company expected to make use of the insurance, which reason was given for justifying the prorating of the premium. Where a concern is in bankruptcy or about to go into liquidation or any situation arises in which the unexpired insurance will not be used, then

the unexpired proportion might very properly be valued on the short rate basis.

The amount of premiums paid by companies carrying large amounts of insurance becomes so great at times as to warrant their taking the risk themselves and instead of paying the premiums to the insurance companies depositing them in a fund out of the accumulations of which any replacements of property destroyed by fire may be made. This has the effect of carrying the risk instead of placing it upon an insurance company and is often practicable where the possibility of destruction through fire is small. It means many times a saving of money to the company and the procedure may be a highly successful one. There is always the danger, however, of a conflagration, in which case it will be wished with regret that the property had been insured in a company able to stand the loss.

There is not much to be said concerning taxes and rent. They are understood to be items either paid in advance or the liability for which has been acknowledged. They should be written down over the period which they cover. Care should be taken in the case of taxes to observe the effect which the tax bill has, at the time of its receipt, upon the expense and accrual accounts.

Assuming a tax bill amounting to $600 for the year ended December 31 to have been received on the 15th of October and to have been entered in the voucher register but unpaid at October 31st. If the taxes had been accrued monthly on the basis of $600, upon closing the books at October 31st there would have been charged to the expense account for taxes $500 and a credit in an equal amount made in the taxes accrued. The question may now be asked, how should the tax bill be treated in the books at October 31st? Taxes for the year are due the first week in October, therefore if the bill is taken up for the full amount, taxes for two months will, at October 31st, have been for all practical purposes prepaid. Without question the liability will be $600, and the prepaid proportion will amount to $100. If the bill for $600 were to be charged to taxes paid in advance and credited to accounts payable there would be a double liability by virtue of the fact that $500 had already been accrued. To prevent this possibility when the credit for $600 was made to accounts payable the charge should be divided; $500 should be

charged to taxes accrued and $100 to taxes paid in advance. Subsequent to October 31st the account for taxes paid in advance should be written down to taxes in equal monthly installments.

Advertising is somewhat different from the above mentioned items. The question to be decided and which bears on the writing down of the asset seems to be the rapidity with which the advertising is used rather than the period covered. A concern which paid for advertising in advance to the extent of $96 would be justified in carrying that amount as an asset until the advertising was used. The fact that the period covered by the contract was a year would have no bearing on the matter. It is true that the copy might be spread over a year in twelve numbers, in which case one-twelfth of the amount paid would be written off monthly. If, on the other hand, the $96 was for one page of space there would be no reason why the amount should be written off except as space up to one page was used. In any of these cases the entry would consist in charging advertising expense and crediting advertising prepaid.

Organization expense and development expense are of much the same nature. A pile of bricks lying by the side of the road has not much significance. If an architect draws plans for a house and the bricks through the application of careful planning and labor are worked into a house, there will not be much question about the propriety of charging to the cost of the house the fee that is paid to the architect for preparing the plans and supervising the work of construction. Neither will the expense of directing the labor, organizing and superintending the work of construction be objected to as not properly included in the cost. All of these items have added to the value of the bricks. As component parts none of the elements were worth as much as when they became organized into a structure.

Similarly there is no reason why the expense of organizing a corporation or any other company should be objected to as not adding value to the organization. The benefits to be derived from the organization of a corporation extend over a period of years. The benefits do not inure entirely to the first year. It may almost be said that they extend over the life of a charter in the case of a corporation. There is no fixed rule as to the extent, nor is there any fixed rule as to the term of years over which they should be spread. Ultra-conservative

corporations where the profits immediately after organization are large, charge them off against the first year's profits in order to be rid of them. Other organizations spread them over a period of five years; some over ten years and some even as long as twenty years. It is probable that ten years is the average. Organization expenses will consist of various items, such as compensation and expenses of officers or stockholders prior to incorporation; legal and other expenses incident to the organization. The account sometimes includes the bonus paid to promoters. The amount as ultimately determined should be written down over the term fixed by the officers or directors, by charging organization expense written off and crediting organization expense. The same thing can be accomplished by charging organization expense written off and crediting reserve for organization expense. The latter is perhaps to be chosen because of the fact that it permits the original asset to stand, thus showing at all times what the expense of such organization was. When the reserve equals the asset one may be closed out against the other if desired.

Development expense is usually found in connection with mining companies where it is treated in a manner similar to that described above in connection with organization expense.

Moving expense is sometimes found as a deferred charge. This may happen where it becomes advisable for a plant to move from one place to another and it is thought that the benefits resulting from the change of location are sufficiently great to warrant the expense thereof being charged to a deferred account. It is thought few concerns will be found which capitalize this item, for the reason that they are less justified in deferring the charge on an expense of this kind than in almost any other case imaginable.

REFERENCES FOR COLLATERAL READING:

Journal of Accountancy, Vol. VIII, page 401.

CHAPTER XIX

CONSIGNMENTS

The whole subject of consignment must for the purpose of discussion be divided into two parts, namely, consignments received and consignments shipped. A consignment may be defined as goods delivered by the party of the first part to the party of the second part for the purpose of sale by the party of the second part for account of the party of the first part. The party of the first part is known as the consignor. The party of the second part is known as the consignee. In dealing with the subject it must be looked at from two points of view, first, that of the consignee and, second, that of the consignor.

In treating the subject of consignments from the point of view of the consignee there must be considered the consignment invoices, the books to be kept, the procedure which the accounting follows and the manner of showing the accounts both on the books of the consignee and upon the balance sheet. All of these will depend upon several things.

A consignment invoice will at times take two distinct forms, depending largely on whether or not the sales prices of the goods have been agreed upon by the two parties. If there has been no agreement as to the sales prices it is probable that the goods will be invoiced as so many units without any accompanying price and consequently without any value. If there is an agreement as to the prices the invoice may show the prices and the value resulting or it may show merely the quantities without prices and value.

It may be of interest before discussing the subject further to trace an invoice of consigned goods from the time of their receipt until such time as they are sold and accounted for. Upon receipt of the goods there is the possibility that the consignee will be obliged to pay certain charges for freight, insurance, cartage and possibly duty. Whether these charges are to be borne by the consignee or the consignor will depend upon the contract between the two parties and would seem unimportant to the discussion at this moment. The goods will be put in stock and subsequently sold. In connection with their sale there may be

expenses such as outward cartage and freight, trade discount, allowances and in some cases cash discount. At the end of the month or at some intervening date the consignee will render to the consignor an account for the goods sold, which is technically known as an account sales. Such an account will show the gross sales less the charges or expenses which are to be borne by the consignor, together with a further deduction which has been agreed upon for the commission to the consignee, and as a balance closing the statement the amount which the consignor is entitled to receive.

Two main questions are presented. The first one is whether, in the accounting, cognizance shall be taken of the consigned goods from the time they were received. The second one is whether any attention shall be given to the goods so far as their effect upon the general accounts is concerned until such time as they have been sold and accounted for. In discussing the first question the invoice will have to be taken into consideration. The procedure is somewhat simplified if the consignment invoice shows the price at which the goods are to be sold. It becomes more difficult if no prices are given in the invoice. In such an event prices must be placed upon the goods in order to establish a basis for the accounting. These must needs be arbitrary figures because of the reason that where prices are not shown there is the possibility that the goods will not be sold at fixed prices and the price may vary in accordance with the extent to which competition exists in the trading.

To illustrate this point a consignment of motor cycles may be received without any price being shown on the invoice. The understanding may be that they are to be sold for $250, with, however, the qualification that they may be sold for more or less. To take them up at time of receipt means that they must be priced at $250 and carried in the accounts at such figure. If perchance they are not sold at $250 then the original pricing must be adjusted and the corresponding accounts affected also adjusted. If, however, the price is fixed and the consignee has no discretion in selling the goods this difficulty is overcome. To summarize briefly the foregoing and to afford a basis for further discussion it may be said then, that goods received on consignment may be taken up at the time of receipt or at the time of accounting regardless of whether prices are or are not shown

on the invoice and that if not shown the goods must be temporarily priced at a figure which may or may not require adjustment in accordance with the agreement by the two parties.

The question of books will depend largely on whether the goods are to be taken up at time of receipt or at time of sale. To illustrate the procedure in these two cases, let the following be considered: first, as to goods taken up in the general books at the time of their receipt. The invoice may be considered as covering ten motor cycles priced at $250, with the value of $2,500 attached. The bookkeeping operation will consist in charging an account called consignments or consignments received and crediting an account with the consignor. This process would not differ from the treatment of the ordinary purchase invoice except that the credit account should be designated in some way to show that it is not a liability account. The invoice would be entered in the purchase journal or voucher record. If controlling accounts are kept the credits to consignors should be entered in a separate credit column or marked in some way for the purpose of facilitating their elimination at the end of the month from the total column in order that such amounts will not be included in the credit to the controlling account for accounts payable. Where consignments are numerous they will usually be put through the purchase journal or voucher record. If they occur infrequently they may be taken up through the general journal charging consignments and crediting the individual account with the consignor.

Next would come any charges for inward freight, cartage or insurance. As before stated these charges may be stood by the consignor or consignee depending upon the contract, but presumably by the consignor. In the instance in hand let it be assumed that such charges amount to $20. The consignee upon paying these charges or upon taking up a liability for them would instead of charging his own freight and cartage account charge an account called "freight, cartage, etc., on consignments."

Upon the sale of the goods the consignee would issue a sales invoice to his customer. The customer would be charged, but instead of the amount corresponding to the invoice being credited to the general sales account of the consignee it would be credited to the asset account for consignments. In concerns where a mixed business is conducted the sales of consigned goods are segregated

from the sales of owned goods by having a separate column for same in the sales book.

It might be assumed in this instance that the motor cycles were sold for $2,500, the fixed price. The terms to the customer might provide for a trade discount of 10% and a further discount of 2% from the net amount for cash in 10 days. The trade discount would amount to $250. The cash discount will be determined later. It might also occur that the customer would make a claim for allowance of $10 for certain defects in one of the wheels and $15 for freight which he had paid on account of the wheels having been shipped to him collect. Assuming these allowances to be made the customer will without question have to be credited in corresponding amounts and the accounts to be charged when the customer is credited will depend upon the terms of the contract as to whether the charges are to be sustained by the consignee or consignor. Since the consignee is acting purely in the capacity of an agent transacting business for the consignor in return for a commission it is probable in most cases that the charges will be sustained by the consignor. Thus the item charges mentioned would be charged respectively to allowances on consignments and delivery charges on consignments. If the reverse conditions existed these items would be charged to the respective general accounts of the consignee and would affect his expense of doing business.

Looking at the customer's account it would be seen that it was charged with $2,500 and credited with three items, namely, $250 for trade discount, $10 for allowances on account of defective goods and $15 for delivery charges. The net debit balance in the account would be $2,225, which if subject to a cash discount of 2%, would be further reduced in the amount of $44.50.

Up to this point the account with a consignor has not been affected since the original credit of $2,500. This amount represents the gross figure which must be accounted for to the consignor by the consignee. The goods having been sold the agent is now liable to his principal for the proceeds of sale. In order to determine the extent of this liability the consignor's account must be adjusted by the various charges for freight, discount, allowances, etc., and the commission which the agent is entitled to for his services in selling the goods. The commission is probably without exception figured on the gross selling price,

which may have been predetermined or fixed by the actual sale. If in this case the agent is to receive a commission of 5%, such commission would amount to $125.

In attempting to determine the liability to the consignor's several accounts, which are in the nature of offsets to the $2,500 originally credited to the consignor's account, must be closed out and charged against it. These items are inward freight on consignments $20, trade discount $250, allowances for defective goods $10, delivery charges $15, cash discount $44.50. The consignor's account would also further be subject to a charge of $125 for commission. It is to be borne in mind that when this commission is computed and charged against the consignor a commission earned account will be credited with $125. This as will be seen later constitutes the agent's earning or income in connection with the transactions. The customer's account will presumably have been closed by a credit of $2,180.50, which will have been charged to the agent's cash account when credited to the customer.

If we may look now at the consignor's account we shall find it credited with $2,500 and charged with several items aggregating $464.50; a net balance of $2,035.50. This amount represents the liability of the agent to his principal, and its treatment at this point may be considered for a moment from a purely technical point of view. Originally it existed as an accountability. It has now been transformed into a liability and the question to be decided is whether or not the balance of $2,035.50 shall be allowed to stand in the account and the account closed by a charge in a similar amount when the cash is paid over to the consignor, or whether the account shall be closed by a charge of $2,035.50, transferring the balance to a liability for accounts payable. Technically the latter method is the more correct. Practically the first mentioned method may be more convenient and no objection can reasonably be raised to its use where the transactions pertaining to the consignment are complete. An objection to this method does arise, however, where the transactions are not complete or where a partial accounting for goods sold becomes necessary. It will probably be apparent where such conditions exist that the balance in the account represents a mixed situation, namely, one of accountability and one of liability. Where this occurs there will probably be no question about the desirabil-

ity of transferring the completed portion to a liability account and closing the latter subsequently through a debit at the time the cash is paid.

If we are now to go back for a moment and look at the accounts we shall find a debit balance of $2,180.50 in the cash account representing the cash received from customers and credit balances in the consignor's account and the commissions earned account, amounting respectively to $2,035.50 and $125. If now settlement is had with the consignor he will receive a check for $2,035.50, thus closing his account and there will be a corresponding credit to the cash of $2,035.50 resulting in a debit balance in the latter account of $145. At this point two accounts pertaining to these transactions will be open, namely, cash and commissions earned. To analyze the balance in the cash account of $145 it is found to be made up of two items, one of $125 representing the commission earned by the agent and $20 representing the amount advanced by the agent on account of inward freight and for which he has been reimbursed by a deduction in settlement with the consignor.

It sometimes happens where there are numerous accounts with the consignors and partial settlements are made, that the accounts with the consignors are allowed to reflect both the accountability and the liability until the books are closed, when such portions of the accounts as are ready for settlement are taken out of the consignors' accounts and transferred to corresponding liability accounts. This facilitates somewhat the preparation of the financial statements in that it makes it possible to show on the balance sheet the distinction between accountabilities and liabilities.

In the case of consignments taken up at the time of receipt where the invoices are not priced, there will be no variation of the above described procedure except in so far as the value at which the consignment is carried. No price being shown on the inventory there are two possible variations which may need to be explained. In the case just illustrated the goods were taken up at $2,500. The two possible variations to be examined are first the assumption that a value of $200 had been placed upon each wheel and second that a value of $275 had been placed upon each wheel. In the first instance the consignment account would have been charged with $2,000 and the consignor's account

credited in a similar amount. Then if it is to be assumed that the wheels were actually sold on a basis of $250 each, or $2,500, there will be seen that two accounts must be adjusted in order to keep the books in balance and make the accounts truthfully record the transactions. Since the consignment account has been charged with only $2,000 and the consignor's account credited with $2,000, upon sale of the wheels for $2,500 the adjusting entry necessarily would consist in charging the consignment account with $500 and crediting the consignor's account in an equal amount. If, on the other hand, a value of $275 each had been placed upon the wheels the consignment account would have been charged with $2,750 and the consignor's account likewise credited. If again these wheels were sold on a basis of $2,500, it would be noted that the consignment account as well as the consignor's account was originally charged and credited respectively with $250 too much and an adjusting entry charging the consignor with $250 and crediting the consignment account with the same amount will consequently be necessary.

The other general proposition concerning the treatment of consignments involves their disposition when they are not taken up until time of sale. Under these circumstances no entry is made in the general or financial books at the time of their receipt. They are carried on a memorandum book or stock record which has nothing whatsoever to do with the financial accounts. They are not considered at all in such accounts until they are sold. The only possibility in connection with them which will require an entry on the general books is when any charges are paid or advances or charges are made against the consignor by the agent. As example of this there may be payments made by the agent for inward or outward freight and cartage or other similar items. Notwithstanding the fact that the agent has made no entry on his books for the consignments, he will of necessity charge the consignor's account with any such amounts. At the time of sale, or subsequently, an account sales would be made up showing the net proceeds on the consignment exclusive of advances and commissions and the amount of such net proceeds will be credited to the consignor's account. There will subsequently be made a charge for commission computed as before upon the gross sales price and this amount will be charged to the consignor's account simultaneously with the credit to the account for commissions

earned. The consignor's account will at this point show the net balance which he is entitled to receive and which will be wiped out by a charge when the cash is paid.

Such is the effect upon the books of the two methods of treating consignments. This whole subject is one upon which accountants generally disagree. It is another instance in which no set rule can be given. The bookkeeping method should be determined largely by the merits of individual cases. At times it will be more convenient and practicable to handle them upon receipt in the memorandum form. At other times circumstances will dictate that they be taken up in the books at the time of their receipt.

Regardless of the bookkeeping there is still a subject which causes considerable discussion, namely, that of the manner in which the subject shall be shown on the balance sheet. If the consignments are not taken up until time of sale there can of course be no possibility of any discussion arising for the reason that if they have been sold the liability becomes evident and is properly included among the accounts payable in the balance sheet. If perchance they have been taken up at time of receipt and all have been sold at the date of the balance sheet, the same thing will be true since there will be the same liability as in the preceding case. The condition which causes the trouble is that there are goods remaining on hand at the time of preparing the balance sheet. Some accountants insist that even though carried on the books they shall not be shown either on the asset or liability side. The supporters of this argument claim that they are neither assets nor liabilities and that the only item in connection with consignments which may ever appear upon the balance sheet in connection with consignments received is a deferred charge against the consignor which may have arisen in connection with advances on account of consignments in which the account-sales has not yet been rendered.

The supporters of another argument hold that a balance sheet is a statement or financial condition taken from the general ledger after the books have been closed. If the ledger shows a debit for consignments and a credit for consignors they maintain that these items must be shown on the balance sheet in order to have this statement agree with the books. They argue further that such purpose is accomplished by showing the items on the

balance sheet and there can be no possible objection to it so long as they are ear-marked as contras and not made to represent either assets or liabilities.

It is probable that in most cases it will be found more convenient to carry them on memorandum and not include them in the general books. It is probably also more correct from a technical point of view to exclude them from the balance sheet upon the theory that they are neither assets nor liabilities of the concern whose balance sheet is exhibited and that they are carried on the general books merely as a matter of convenience and the proper control of the accounts.

The other instance in which the question of consignments arises is that where goods are shipped on consignment instead of being received. This question can be settled with facility by dividing it for discussion into two parts, namely, cases wherein goods are invoiced at specific prices and where they are shipped only on memorandum. Where they are invoiced at a price the effect upon the accounts must be looked into. Here the invoices will take the form of any other invoice for goods actually sold. The goods will be charged to the consignee, but they must not be credited to the sales account, for the reason that a sale has not actually taken place and it would be anticipating profits to include such invoices in the sales account. Upon being charged to the consignee they should be credited to a consignment sales account. This is frequently made possible by using a separate column in the sales book for such items. They are thus credited to a consigned sales account which is in the nature of a deferred credit to income. They must not, however, be taken into income until such time as they are sold.

In treating them in this manner there must be taken out of the cost of the goods actually sold, an item representing the cost of goods shipped on consignment. In a case where the consignment sales value is for example $2,500, and the cost of such goods $2,000, the following entry will serve:

Consignee:	
To Consigned Sales........................	$2,500
Cost of goods consigned:	
To Cost of goods sold......................	$2,000

Upon the sale of the goods and the subsequent report of the consignee in the form of an account-sales the matter will have

to be adjusted. If we may assume that the consignee is entitled to deductions covering freight and other charges and commission amounting to $300 then the entry will be as follows:

Consigned sales	$300	
Cash	2,200	
To Consignee		$2,500

The account for consigned sales will have been reduced by a debit of $300 and may thereafter be released from its deferred status and closed out to the sales. Thus it will be seen that merged in the sales for the period there will be an item of $2,200 and merged in the cost of the sale there will be an item of $2,000. Thus merging in the gross profit on sales for the period an item of $200.

It is sometimes found desirable instead of merging these items with general sales and cost of sales of the company to close such portions of the consigned sales account and corresponding cost of consigned goods sold into a separate trading account for consigned sales in order to show the profit on such transactions separately from the general sales transactions of the company. This is done usually for statistical purposes in cases where it is desirable to ascertain whether or not it is more profitable to sell goods through agents than to establish branches for the conduct of such business.

If the invoices for consignments shipped are not priced at time of shipment and charged to the agent the manner of handling them becomes very much simplified. There are two distinct ways of doing this. One is to ignore entirely the matter of charging agents from the general books and merely taking up the net proceeds as sales when the account sales is received. This of course accomplishes the desired result, but it leaves no trace on the books of the goods themselves. When cash is received sales are credited. The corresponding cost of these sales will of course be merged in the cost of goods sold. The other method is to credit the purchase account and charge a consignee's account with the cost of goods, or the estimated cost, at time of shipment and upon receipt of the sales report, at which time sales are credited, to make the necessary transfer from the consignee's account to the cost of goods sold.

REFERENCES FOR COLLATERAL READING:

Accounting, Practice and Procedure, Dickinson, pages 133-143.

CHAPTER XX

CAPITAL LIABILITIES

This term is used to denote that class of liabilities incurred in connection with the acquisition of funds for capital purposes. Emphasis is to be placed upon the word liabilities. Capital invested by the proprietor as represented by the proprietor's capital account or by capital stock is not included in this class. Capital invested is to be considered as an accountability rather than a liability. Capital liabilities usually take the form of bonds, debentures, long-term notes or the so-called bonds and mortgages.

It is a difficult matter to define a bond in such manner that it will be distinctive. There are, however, some common grounds on which all can agree as to the definition of a bond. It is an instrument containing a promise to pay a definite sum of money at a time which is fixed or determinable, with interest at a given rate. When this has been said a bond has been defined. The definition does not differentiate it, however, from every other class of instruments. An attempt to differentiate it results in an academic discussion.

For practical purposes a bond seems to have been sufficiently described. A discussion, however, of the theoretical phase of the subject brings out some very interesting facts in connection with bonds. There appears offhand to be some distinguishing features to bonds. One of these is that a bond is secured by a mortgage on certain property. If we accept this as conclusive someone raises the question as to whether or not collateral notes are secured by a mortgage on certain property. If we attempt to say that the interest on bonds is payable at a fixed rate per annum we are confronted with the fact that in the case of income bonds the interest is only paid when earned. Some authors give as the distinguishing feature of a bond the fact that it is issued as a part of a series of like tenor and amount and in most cases under a common security. The flaw which can be picked in this distinction is that collateral notes meet this requirement. The point of formality is sometimes introduced to distinguish a bond from a note. It is said, for example, that a bond

is more formai than a note and in its common law form resembles a deed through seal and witnesses. These facts are all true of collateral notes.

From the above the difficulties which surround the task of defining a bond will be apparent and no impregnable definition seems possible. A happy solution of the academic question may possibly exist in saying of a bond that it is an instrument containing a promise to pay a definite sum of money at a future time which is fixed or determinable with interest and when so referred to within, or upon the face of, the instrument. From a practical standpoint it is really of more importance to be familiar with the effect of the bond upon the financial condition of a concern and the treatment of the ramification of bonds in the form of interest, than with determining just what it is.

In considering the relation of the capital liabilities to the financial condition the principal point of interest is whether such liabilities are, or are not, secured. It matters little whether the obligation is called a bond, a collateral note or a collateral trust certificate if the obligation is secured by a mortgage upon certain assets of the organization. It is important to distinguish between liabilities which are secured and those which are unsecured, the latter being represented by such instruments as debentures and income bonds.

A debenture is a long-term note. It is similar to a bond in every respect, except as to the matter of security. A debenture is unsecured. It would seem incongruous to use the term debenture bond. Doubtless no one will dispute that a bond is secured and while the definition of a bond was controverted because of the fact that other instruments were secured it does not seem proper to include under bonds an instrument which is unsecured. A debenture may be defined as an unsecured instrument which contains a promise to pay a definite sum of money at a time which is fixed or determinable with interest and when so referred to within, or upon the face of, the instrument.

Concerning income bonds it may be said that they are usually unsecured. They sometimes acquire mortgage rights if the interest is unpaid and are sometimes secured in a way by the pledging of net earnings after interest on prior claims has been met. The vital point regarding income bonds is that the interest is not paid unless earned. The determination of this earning is largely

in the hands of the directors and on account of the contingency connected with the payment of interest they are not a very desirable class of instrument to offer to the public for the purpose of obtaining funds.

Bonds, long-term notes, debentures, income bonds, etc., have to be considered with regard to the order in which they rank. Bonds and secured notes will at all times take preference over debentures and income bonds. Bonds considered separately will rank in accordance with the priority of the mortgage which accompanies them.

One thing is true of all instruments, regardless of whether they are secured or unsecured. It is possible for all, although not probable in some cases, for them to be sold or disposed of either at a premium or at a discount. The accountant is concerned with the disposition of such premium or discount and as usual two methods of handling such items are available.

Taking up first the case of a bond or other instrument sold at a discount, three questions may be asked: first, "Shall the discount be charged immediately to profit and loss?"; second, "Shall the discount be charged annually direct to profit and loss?"; and third, "Shall it be treated as addition to interest paid annually on bonds and charged to such interest account?" Very few concerns probably would charge such an item immediately to profit and loss. It is thought that most accountants would favor spreading the discount over the life of the bond. If this point may be considered as having been settled, then the question remains, "Shall the discount when it is written off annually be charged to the interest account which will subsequently be closed out to profit and loss, or charged direct to profit and loss?" It is quite true that the ultimate result would be the same in both cases. There is then a further question, "What is to be accomplished by first charging the amount written off each year to the interest account?" It can be answered by saying that in so doing you show the actual expenses in one place of using the money acquired through the bonds.

A $1,000 bond payable 20 years hence bearing interest at 6% and sold at 98 would necessitate the setting up of a discount account with a debit of $20. When the bond was sold the entry covering the transaction would show two charges, one of $980 to cash and one of $20 to discount. These entries would be offset

by a credit to bonds payable. The interest on this bond for one year would be $60. Among the nominal accounts there would appear one for interest on bonds payable. This account prior to closing would show a debit balance of $60. The accounts would ultimately be closed out to profit and loss. In closing the accounts for the year some cognizance must be taken of the account for discount, showing a debit balance of $20. If this account is written off direct to profit and loss annually, it will practically ignore the fact that the maker of the bond has paid $61 for the use of the money rather than $60. Discounting the bond is not at all different from discounting any note, except that by the terms of most bonds the interest runs with the bond. Discount has the effect of increasing the interest paid. It is in connection with instances of this kind that we hear of bonds being bought at 98 to yield 6.1%. The man who buys a bond at 98 receives not only 6% computed on the face of the bond, but in addition $20 which will be paid to him at maturity.

After the foregoing discussion it would seem best in charging off discount to charge it to the interest account and thus make such account show the true expenses of the borrowed capital. The accounting procedure would be somewhat similar except reversed as to actual operations where bonds are sold above par or at a premium. In this case the bonds might be sold at 102, meaning that in each instance the maker of the bond would receive $20 more than he would have to pay at maturity. The premium has the effect of decreasing the yield on a bond and therefore a corresponding effect upon the expenses of securing funds. For this reason it would seem desirable to follow the same practice indicated in the case of discount, namely, to credit the premium on bonds sold to an account so designated and amortize the premium by entries, annually or oftener, extending over the life of the bond. Thus the amount, whatever it may be, will be charged to the premium account and credited to the account called interest on bonds payable.

There is still to be considered in connection with bonds the manner of treating the interest. If the books were run on a cash basis we should expect to find the interest on bonds and similar instruments charged to the interest account for such instruments at the time it was paid and credited to cash. It is not probable that a concern sufficiently large to have outstanding

bonds would make use of the cash basis. In fact it is perhaps this very matter oftener than any other which makes a concern realize the importance and necessity of running their books on the accrual basis. When in connection with a bond we see the expression January 1st and July 1st, it means that such dates are the dates on which the interest is due and payable. The use of such expression should never convey the idea that the interest is not to be booked until paid. Regardless of the date of payment the interest continues to accrue and even though not payable until January 1st there would be in the case of interest payable January 1st and July 1st, six months' interest accrued at the close of the business on December 31st. The correct way of treating interest is to accrue it in accordance with the time elapsed, thereby charging the expense account for interest and crediting the liability for the interest accrued. A distinction is sometimes made in the balance sheet as between interest accrued and due and interest accrued not due, for the reason that such a distinction renders a balance sheet more comprehensive and useful in attempting to base administrative judgment thereon. It seems scarcely necessary to say in discussing the question of accruals that having charged interest and credited interest accrued, when the interest is paid, charge is made against the interest accrued account.

REFERENCES FOR COLLATERAL READING:

Accounting, Practice and Procedure, Dickinson, pages 39, 87, 108, 148-150, 258-260.

Accounting, Theory and Practice, Lisle, pages 118, 119.

Accounts, Their Construction and Interpretation, Cole, pages 171, 214, 217, 199-202, 333.

Science of Accounts, Bentley, pages 53, 54, 62, 104-108, 135-136, 144-151, 196-197.

Auditing, Theory and Practice, Montgomery, pages 141, 172, 195.

Philosophy of Accounts, Sprague, Chapter IX.

Modern Accounting, Hatfield, Chapter XIII.

CHAPTER XXI

RESERVES

A reserve is a credit account which imposes a restriction of one kind or another either on specific assets or the otherwise free assets taken collectively. The restriction may be one of use or one of value. A reserve may be created either by charging an asset account or by charging proprietorship.

A reserve for a building fund accumulated out of contributions is established by charging the fund and crediting the reserve, and restricts the assets as to use. A reserve for depreciation of property is set up by charging proprietorship and crediting the reserve, and restricts the property asset as to value. An appropriation reserve arises through a charge against proprietorship, and restricts the general assets as to use, in that cash may not be taken for dividend purposes unless there is surplus, aside from the appropriation reserve, sufficient to permit a declaration of dividend.

Much annoyance has been occasioned in the past, and to some extent continues, on account of the tendency to confuse reserves as used in an accounting sense with the significance which the word has in banking.

The trouble is probably due in a large measure to the practice established years ago by the comptroller of the currency in accordance with the national bank law of requiring national banks to report their reserve funds. It is probably true that the word "reserves" was first used to denote reserve funds, in the statements of resources and liabilities of national banks. This was perfectly proper when taken in connection with accounts of national banks and for the purpose which it was intended to serve. The origin of the banking reserve dates back to the time when it was first discovered that upon certain occasions more than the ordinary number of depositors might apply at one time for the money which they had on deposit. The liability to depositors was recorded by an account called individual deposits. The account was originally opened when an individual deposited cash. When cash was received the depositor was credited. If the bank used its cash for the purpose of making loans, the

general cash was credited and "notes and discounts" was charged. If the account of this one depositor were magnified to represent that of several thousand, it will be seen that out of the cash received from depositors, there might be set aside an amount which would be sufficiently large to meet any reasonably large combined demands for withdrawals on the part of depositors. Such funds were held in reserve and accordingly received the name of reserve funds or reserves. This provision, it will be noticed, was for the purpose of providing for the liquidation of a liability just as a sinking fund would be accumulated for the purpose of redeeming outstanding bonds at maturity.

The term sinking fund has become so common that it is probable no one ever thinks of calling a sinking fund a reserve. There would not appear to be any reason why, when it is well known that this confusion of terms exists, care should not be taken in the use of terms and only such terms used as are descriptive of the subject and at the same time commonly accepted and understood without question. This it seems might be accomplished by calling a fund "a fund" and a reserve "a reserve." The use of the word reserve should be avoided in connection with the word fund. The word fund should never appear on the liability side.

The purposes which reserves serve are numerous. One is to safeguard the business from detriment through the withdrawal of capital. Another is that of increasing the value of an asset without increasing the capital or proprietorship. Reserves are also used as a means of providing for future losses in a specific asset without at the time of loss affecting the capital or proprietorship. In a similar manner they are used as a means of providing for future losses of any kind without at the time of loss affecting the proprietorship or capital. Where a corporation takes over another concern and the net assets of the concern taken over exceed the par value of the stock issued for same, the excess is sometimes represented on the books of the corporation by a reserve. Such a reserve is as a rule temporary in its existence and stands on the books pending a revaluation of the assets. Another use for reserves is that of serving as a bookkeeping expedient for reducing proprietorship without altering the asset account affected. Still another use to which reserves are frequently put is that of controlling or measuring the extent of an asset such

as a fund. They are also used to measure appropriations of capital or surplus.

A construction company entered into a contract with a certain municipality. A holding company to which the construction company was subsidiary guaranteed satisfactory performance on the part of the construction company. The bookkeeper of the holding company was instructed to make an entry which would record the transaction. He found some difficulty in making the entry because of the fact that he could not determine the amount for which the entry was to be made. He saw that it was necessary to record the contingent liability in favor of the municipality. He also decided that the offset to the contingent liability was a contingent asset in the nature of a claim against the construction company. Since it was necessary to make an entry and no amount was available he selected the nominal value one dollar ($1.00) and made an entry charging "Guarantee—Columbus Construction Company" and crediting "Reserve for Guarantee—Columbus Construction Company." This it will be seen was purely a memorandum entry and did not affect proprietorship in any way. The entry was made in order that the facts should not be lost sight of. The use of the word reserve in this instance was obviously a misuse.

Two partners were engaged in a manufacturing business. They agreed between them that 50% of all profit should be reserved and not available for drawings. The capital was small, unequally invested and drew interest. The reserves did not draw interest. It was the purpose in establishing the reserves to build up the business and strengthen it; to protect it from the inroads of excessive drawings. The account on the books was called "Partners' Reserves." In this case there was somewhat more justification for the use of the word than in the other instance cited. The reserve was a part of proprietorship. It seems, however, to have been placed in an account other than those of the partners simply because of the fact that it was non-interest bearing.

An industrial corporation placed a mortgage on its property and sold bonds. The bonds contained a clause which stated that a reserve should be created annually out of profits. The reserve was created and at maturity equalled the amount of the bond issue. The company had from time to time been investing its

surplus funds in securities. At maturity these were sold and the outstanding bonds redeemed. The account was called "Reserve for Redemption of Bonds." The account represented a true reserve, but it was not appropriately named. Redemption of an outstanding obligation cannot be effected through an account on the same side of the books. The bonds were redeemed out of the proceeds of the securities sold. The account should have been called "Reserve for Protection of Bonds." This is not suggested as an improvement of the accounting nomenclature now existing; rather as describing the conditions in this case. The reserve in reality served as a protection to the bond issue in that it prevented the surplus funds of the company from being withdrawn as dividends.

Another corporation was desirous of revaluing certain land which it owned in accordance with values in the surrounding neighborhood. Some of the directors favored increasing the value of the land and crediting the amount of the increase to surplus. Others opposed this proceeding on the ground that land values fluctuate and the value might decrease. They contended that if the credit were made to surplus the amount would be available for dividends; the dividends might be paid and the value subsequently decline. It was finally decided to revalue the land and credit the increase to a "Reserve for Appreciation of Land."

Many concerns make provision for losses on accounts by charging profit and loss and crediting a reserve for such purposes. Consequently we frequently see the account, "Reserve for Bad Debts." It is not an uncommon occurrence to find a reserve for contingent losses. The two reserves are similar. One is for a specific purpose. The other is for a general purpose.

A firm of contractors and builders decided, on account of labor troubles, etc., to incorporate. The combined capital investment of the partners was approximately $100,000. In order to escape the state tax on corporations, it was decided to incorporate for $25,000 and have the partners take notes of the corporation for the balance of their old capital. As taken over by the corporation, the plant and equipment was appraised and was found, together with the other assets, to exceed the liabilities and capital stock by about $25,000. This amount was credited to an account called "Reserve for Capital Surplus." While the amount prob-

ably would have been available, as surplus, for dividends, it was the desire of the partners to have it reserved as surplus. This had the effect of withholding the amount from both the capital stock account and the partners' note accounts as well as prevent its use for distribution as dividends.

A reserve for depreciation is merely an expedient for estimating the decrease in the value of an asset without affecting the asset account. It is the reverse of writing down the asset on account of depreciation. The former method is to be preferred since it permits the account to show the facts with regard to the asset without the introduction of any indefinite factor such as depreciation. If the depreciation is excluded the account will show the original cost of the asset, with subsequent additions and deductions at cost. Such a reserve effects a reduction in capital, in an amount which corresponds to the estimated depreciation of the asset, for the purpose of showing the estimated value of the asset.

A coal company obtained a part of its land, in which mines were located, through borrowed capital. The capital was obtained through the sale of bonds secured by a mortgage on the property. The mortgage provided that a reserve equal to ten cents (10c.) a ton should be created annually out of earnings and that an amount equal to the reserve should be deposited with a sinking fund trustee for the redemption of the bonds.

A certain hospital decided to devote the income from certain sources to the erection of a building for housing its nurses. It will be noted that, given the commonly accepted meaning, the income would not accomplish such purpose. The receipts corresponding to the income would, however, provide the necessary fund. The income may have taken the form of subscriptions. The payment of the subscriptions may have followed. The reserve in this case, as in that of the coal company, had the effect of measuring the fund and restricting its use for special purposes.

The government, federal, state, and municipal, is in the habit of apportioning its revenues for various purposes by appropriation. The appropriation bill usually reads "and there is hereby appropriated out of any moneys not otherwise appropriated the sum of * * *." This has the effect of restricting the general surplus and confining the application of the appropriation to a specific purpose. The respective appropriation reserves have the

effect of measuring the various funds, or of determining the equity of each appropriation in the funds appropriated.

In a similar manner, a mercantile concern may appropriate a part of its surplus for a specific purpose. Some concerns have created reserves for pensions and sick benefits among employees out of their surplus. Where the concern is sufficiently well established and has sufficient cash available at any time to meet payments to employees, it is not considered necessary to fund the reserve. The funds are allowed to remain in the business; the company pays interest for their use; the amount due to the fund is determined by the reserve to which the interest is credited.

A well-known biscuit concern distributed its product to dealers in elaborate tins. The dealers were obliged to deposit with the company seventy-five cents (75c.) for each tin. Receipts of this kind were charged to cash and credited to a reserve. The money was used in the business in the same manner as a bank uses its deposits. In the panic of 1907, the streets for blocks around the plant of this company were filled with trucks returning empty tins. The reserve had not been funded. No cash had been set aside for this purpose. This was a contributing factor in the failure of the company which followed in a short time.

Reserves are created in two ways. One is by charging profit and loss or surplus and crediting the reserve. The other is by charging an asset and crediting the reserve. As examples of the first we have: partners' reserves, reserves for losses, reserves for depreciation, reserves for sinking funds, and appropriation reserves. As illustrating the second method there are: reserves for appreciation, reserves for capital surplus, reserves for contributions. It is claimed by some that reserves may only be created out of surplus. This may be conceded if all additions to assets are considered as accretions of capital and are first credited to capital in spite of the fact that they are subsequently to be set up as reserves.

The use of reserves can scarcely be considered without looking at each with regard to the purpose for which it was created. A reserve for safeguarding the business against withdrawal of capital will presumably stand the same as a capital account, until such time as the business has become sufficiently strong to permit the desired withdrawal of capital. A reserve for losses will be credited with future additions and charged with any

losses. A reserve for depreciation will increase through credits until it equals the book value of the asset which it offsets. This statement must of course be qualified with the remark that consideration will be made for the residual value of the asset if there is any. Broadly speaking, a reserve for a sinking fund will increase until it equals the obligation which the sinking fund is to liquidate. Appropriation reserves are as a rule more stable on the credit side. They may in mercantile concerns fluctuate on both sides. As used by governmental bodies there is usually one credit. This of course assumes that there are no deficiency appropriations. The frequency with which the debits occur will depend upon whether the appropriation is for capital or revenue purposes. If for the latter, charges will be made against the appropriation reserve, as disbursements, or charges which will subsequently result in disbursements, are made. If the appropriation is for capital purposes the reserve will probably be closed by one debit closing the appropriation reserve into capital surplus. Where appropriation reserves are used by mercantile concerns both the debits and credits may fluctuate by additional appropriations and interest credits on the one hand and charges for payments on the other. Cases are known where mercantile concerns have made appropriations for capital purposes. The effect of such procedure is only to tie up the surplus and acts as a commitment to improvement or extension before dividends are declared.

Reserves for appreciation may likewise fluctuate. They are set up with a credit. If the asset declines in value they are subject to charge. Reserves for capital surplus are subject to the same remarks. Reserves for contributions are credited when the contribution is received. If received for current purposes the reserve is charged as frequently as disbursements are made. If for capital purposes, the reserve is charged only at such time as the capital asset has been acquired and becomes a part of the general fund. As long as the contribution exists as a special fund so long will there be no charge against the reserve for the purpose of transferring it to the capital surplus.

The disposition of reserves is, broadly speaking, the same in each case. They serve the purpose for which they were set up. Created out of surplus they revert to surplus if they have not been obliterated by use. A reserve for losses will be charged

with the losses. If the estimate for the losses has been too great, the balance in the reserve may be closed out to surplus. If, however, the reserve were too small an additional credit would be necessary, if the practice of providing a reserve for losses were to be consistently followed. The same thing might be said of reserves for depreciation so far as the adequacy of the reserve is concerned. The disposition, when the reserve account equals the asset account, is largely a matter of choice. The reserve may be debited and the asset credited, or the asset may be credited and the reserve debited. One consists, technically, in closing out the reserve against the asset; the other closing out the asset against the reserve. A sinking fund reserve will be closed out to surplus after the sinking fund has been used to liquidate the liability shown by the bond account. Appropriation reserves will be reduced by charges when set up for revenue purposes. Any unrequired balance will revert to surplus as will any reserve for capital appropriations.

Reserves for appreciation will usually stand until the increased value has been determined beyond a doubt. When such has taken place the reserve may be closed into surplus. Reserves for capital surplus are very similar. As long as they represent tentative values they should stand. When the value of the assets which they represent is unquestionable they may apparently be closed into surplus. The question concerning this matter is, whether or not the surplus so acquired, and without doubt available for dividends, has been earned. The Consolidated Laws of 1909 (chapter 59, section 28, volume 5, folio 4004) provide that "It shall be unlawful for the directors or managers of any incorporated company in this state (New York) to make dividends excepting from the surplus profits arising from the business of such corporation."

The law does not state whether the "dividends" shall be paid in cash or in stock; neither does it define "surplus profits." These two points, however, are practically settled by the case of Williams *vs.* Western Union Telegraph Company (93 N. Y., 162).

The Western Union Telegraph Company declared a stock dividend out of surplus and a stockholder brought suit to prevent the payment of the dividend. The court held that the action of the company was not in violation of the law. After defining surplus as being the excess of assets over liabilities and capital,

the decision continues: "Such surplus belongs to the corporation and is a portion of its property, and, in a general sense, may be regarded as a portion of its capital, but in a strictly legal sense it is not a portion of its capital, and is always regarded as surplus profits."

It would thus appear that a reserve for capital surplus need only stand until such time as the value of the offsetting asset has been definitely determined when the reserve may be closed into the surplus proper.

A reserve for contributions will depend so far as its disposition is concerned upon the purpose to which the fund is devoted. If the fund is used for revenue purposes, the reserve will be closed by charges from time to time as disbursements are made. If it is used for capital purposes the reserve will be closed out to surplus or general reserve, as it is sometimes called in institutions, when the disbursements have been made for such purposes.

Reserves often are the subject of discussion on account of their location on the balance sheet. Generally speaking, there are two ways of showing them: one is as deductions from assets, the other is on the liabilities side, either as a separate group or as a part of capital. An explanation of the reason for placing them on the right hand side of the balance sheet will probably explain also why, in accordance with such theory, they should not be deducted from assets on the left-hand side. Reserves are considered as restricted capital. Capital is the excess of assets over liabilities. Capital is the equity in the assets taken collectively, providing, of course, that there are liabilities. To admit that one particular asset belongs to the proprietor while some other particular asset belongs to the creditors would be unusual. Since reserves are a part of capital and capital is an equity, it is considered unwarranted to deduct a portion of capital from a specific asset.

A careful study of the subject seems to indicate that some differentiation should be made as to reserves in deciding whether they should be shown on the liabilities side or deducted from assets. Where they reduce values of specific assets, even though the reduction is but an estimate, as in depreciation or in doubtful accounts, it seems preferable, for practical purposes, that they should be deducted on the asset side from the items to which they relate. Where they restrict the use of certain assets, measure

equities not specifically ear-marked, or show a restriction of general assets through proprietorship set aside for the purpose, it appears better to show them on the liabilities side. Reserves for special purpose funds, reserves for insurance, not funded, and appropriation reserves, are examples in the latter class.

It has sometimes been stated that one purpose in avoiding the deduction of reserves from assets was to prevent an admission of depreciation of property in the case of a fire. Theoretically it was maintained that if the reserves were deducted from the assets it was an admission of the depreciation, whereas the reverse was true if the reserves were set up broad.

The standard fire insurance policy usually contains the following clause: "The insured, as often as required, shall exhibit to any person designated by this company all that remains of any property herein described and submit to examinations under oath by any person named by this company and subscribe the same; and, as often as required, shall produce for examination all books of account, bills, invoices, and other vouchers, or certified copies thereof, etc." It would thus appear that a mere formality so far as the balance sheet is concerned would not serve as a protection against a searching investigation on the part of the insurance company which it is assumed would determine the value of the property destroyed.

REFERENCES FOR COLLATERAL READING:

Journal of Accountancy, Vol. XI, pages 261, 421.

CHAPTER XXII

THE RELATION OF FUNDS TO RESERVES

The word fund as used herein is intended to be representative of a special fund; one which has been set aside out of the general assets to be devoted to some specific use. The reserve in question must have been created out of proprietorship. The discussion revolves very largely around the question of whether, in practice, one is essential to the other.

If in institutional or municipal organizations certain receipts, for example, donations for laboratory equipment in a school of chemistry, or the receipts of certain fines in the municipal courts, were to be set aside and devoted solely to the purposes specified, there would be no question about the necessity for crediting a reserve, every time the fund was debited. This would be necessary in order that the fund might be controlled and its use restricted.

If in an industrial corporation the employees should contribute jointly with the management to a fund for pensioning aged and injured employees, which fund was to be carried as an account on the books of the corporation there would be no question about the propriety of making similar entries. The corporation becomes practically a trustee for the fund and is not entitled to show the fund as an asset which in part represents proprietorship. The corporation is accountable to its employees for the fund and therefore must set up a reserve to protect it.

On the other hand, suppose that the mortgage securing an issue of corporate bonds states that "there shall be set aside annually, out of profits, the sum of fifty thousand dollars ($50,000) to retire said bonds at maturity," then two questions arise. The first one is, what does the clause say; the second, is what does it mean.

Profits are understood to mean the excess of income over expense. They are shown by nominal accounts which measure through a summary called the profit and loss account the extent to which the assets collectively have increased. That portion of the assets which corresponds to profit cannot be identified as such, as a rule, although the profit is indisputably vested in the

assets. Thus it may be reasoned that disbursements cannot be made out of profits; they may be made out of cash in amounts equal to certain measurements of profit. Obviously the clause previously mentioned must have been drawn by someone unfamiliar with technical accounting expressions.

To determine the meaning of the clause is perhaps more difficult than to decide just what it says. Is it the intention to provide for a sinking fund, or a reserve, or both? It appears as if the only satisfactory manner of settling this question would be to ask the man who prepared the mortgage containing said clause.

For the purpose of discussion the question may be asked, "What would be the effect of either or both of these provisions upon the parties in interest?" Such parties are the bondholders and the corporation.

The object of a sinking fund is to provide the cash necessary to redeem at maturity certain bonds outstanding. The bondholder is interested, not in whether he is paid out of profits or otherwise, but in receiving cash for the bonds which he holds. He is willing to accept nothing else, as a rule.

The mere creation of a reserve in this case does not produce the cash necessary to pay the bondholder. It limits or restricts the free equity of proprietorship in the assets. Regardless of the object, the effect is that of reducing the profits available for distribution as dividends or addition to proprietorship.

During the accumulation of the fund the profits are made to suffer annually to the extent of the deposit. The reserve increases as the fund accumulates. Finally, as the fund equals the indebtedness and the bonds are redeemed, the reserve is released and reverts to surplus or proprietorship. Apparently the stockholders are deprived of these profits until the bonds have been paid off.

One of the most striking illustrations of the application of the sinking fund principle is that of a mine. The land is purchased for the mineral which it contains. The location of the land, or character of its surface, many times prevents its use for anything after the mineral has been extracted. The buildings, machinery and shaft equipment are practically worthless after the mine is exhausted. The stock in trade is the mineral. If capital is invested in the mineral and the mineral is sold care

must be taken that the proceeds are not erroneously considered as representing profits entirely. No merchant will consider that, having sold an article for fifteen dollars which cost ten, he has made fifteen dollars. No mining concern should consider the mineral which is extracted as being pure profit. There is usually an element of cost and if the cost is not reckoned with, depleted capital will result. If the capital is contributed, the stockholders may be surprised to learn that the apparently excessive dividends have been made up in part of capital which was being returned to them. If the capital is borrowed and, for example, secured by a mortgage on the property, the bondholders may find that while during the life of the bond they have been receiving the interest regularly, at maturity the company defaults on the principal, and the property, on which the mortgage was a specific lien, has dwindled into so much earth without any value.

The variation in effect of the above mentioned methods of procedure may be seen in three propositions based on practically the same hypothetical case. The case is as follows:

The Lawtimer Coal Company with a paid-in capital of $25,000 represented by capital stock, purchased a tract of coal land for $100,000. The land was paid for with $25,000 in cash and an issue of 6% twenty-year bonds, secured by a mortgage on the land, amounting to $75,000. The land was estimated to yield and did yield 50,000 tons of coal.

The first proposition assumes that:

a. The mortgage made no provision for a sinking fund.

b. Fifty thousand (50,000) tons of coal were sold at five dollars ($5.00) a ton.

c. The expenses of operation for the period of twenty years amounted to $35,000.

d. The profit after deducting $90,000 for interest on the bonds was distributed as dividends.

e. At the maturity of the bonds there was a balance of $100,000 in accounts receivable.

Skeleton ledger accounts showing the transactions would appear as follows:

Cost of Land		Bonds Outstanding	
$100,000	$100,000		$75,000

Capital Stock

Dr.	Cr.
	$25,000

Accounts Receivable

Dr.	Cr.
$250,000	$150,000
	100,000
$250,000	$250,000
$100,000	

Cost of Sales

Dr.	Cr.
$100,000	$100,000

Sales

Dr.	Cr.
$250,000	$250,000

Cash

Dr.	Cr.
$150,000	$35,000
	90,000
	25,000
$150,000	$150,000

Operating Expenses

Dr.	Cr.
$35,000	$35,000

Interest on Bonds

Dr.	Cr.
$90,000	$90,000

Dividends

Dr.	Cr.
$25,000	$25,000

Profit and Loss

Cost of sales	$100,000	Sales	$250,000
Operating expenses	35,000		
Interest on bonds	90,000		
Dividends	25,000		
	$250,000		$250,000

Balance Sheet

Assets		Liabilities and Capital	
Accounts receivable	$100,000	Capital stock	$25,000
		Bonds outstanding	75,000
Total assets	$100,000	Total liabilities and capital	$100,000

The yield of the mine was 50,000 tons. The cost per ton was accordingly $2.00 per ton. The cost of sales was made up of 50,000 tons at $2.00 per ton, or $100,000. The depletion, as the charge was made to cost of sales, gradually reduced the cost of land until at maturity it was entirely wiped out. The position of the company at the end of the period is no worse than at the beginning. The cost of land at $100,000 at the beginning has been replaced by accounts receivable in the same amount. The position of the bondholders is not so favorable. At the beginning the bonds were secured by a mortgage on the land which contained, as subsequently developed, coal which sold for $250,000. At the end the bonds are still secured as to payment of principal by a mortgage on the land, but the valuable contents of the land have been removed. The specific property upon which the mortgage operated as a lien has been stripped of its value. The desire of the company to redeem the bonds may be above question. The ability to do so is hampered by lack of cash. The bondholders are at the mercy of the company.

The second proposition assumes that:

a. The mortgage provides for a sinking fund of $1.50 a ton.

b. Fifty thousand (50,000) tons of coal were sold at five dollars ($5.00) a ton.

c. The expenses of operation for the period of twenty years amounted to $35,000.

d. The profit after deducting $90,000 for interest on bonds was distributed as dividends.

e. At the maturity of the bonds there was a balance of $100,000 in accounts receivable.

f. The company had borrowed on notes payable and was still owing at the maturity of the bonds, $75,000.

The skeleton ledger accounts setting forth the transactions under this proposition follow:

Cost of Land		Bonds Outstanding	
$100,000	$100,000		$75,000

Capital Stock

	$25,000

Accounts Receivable

$250,000	$150,000
	100,000
$250,000	$250,000
$100,000	

Cost of Sales

$100,000	$100,000

Sales

$250,000	$250,000

General Cash

$150,000	$75,000
75,000	35,000
	90,000
	25,000
$225,000	$225,000

Sinking Fund Cash

$75,000	

Notes Payable

	$75,000

Operating Expenses

$35,000	$35,000

Interest on Bonds

$90,000	$90,000

Dividends

$35,000	$25,000

Profit and Loss

Cost of sales........	$100,000	Sales..............	$250,000
Operating expenses..	35,000		
Interest on bonds...	90,000		
Dividends.........	25,000		
	$250,000		$250,000

Balance Sheet

Assets		Liabilities and Capital	
Accounts receivable.	$100,000	Capital stock.......	$25,000
Sinking Fund cash..	75,000	Bonds outstanding..	75,000
		Notes payable......	75,000
Total assets......	$175,000	Total liabilities and capital..........	$175,000

The situation as represented by the above balance sheet is, it will be noted, decidedly more favorable to the bondholders. The land has disappeared, the same as in the first case, but so much of it as represented borrowed capital has been replaced by a sinking fund. This fund the company is bound by the provision of the mortgage to devote to the retirement of the bonds.

The company is as well off as in the preceding instance. The bonds are due, but the cash is available with which to redeem them. There are notes outstanding to the extent of $75,000, but they should be amply provided for as the accounts receivable are realized.

One fact must be brought to the attention in this proposition. That is the fact that the payment of dividends was made possible through the borrowing power of the company. Dividends might have been declared quite easily since there was sufficient profit to warrant them. To obtain the cash necessary to pay the dividends is another matter. The presumption should exist, it seems, that if the profits are bona fide and accordingly are vested in sound assets, sooner or later the same assets will be realized and the payment of dividends would seem to depend entirely upon the ability of the organization to borrow the necessary cash if perchance such borrowing should become necessary. There does not seem to be any reason why the establishment of the sinking fund, which in this case is merely a setting aside of a part of the cost, should interfere with the payment of dividends, which is a distribution of funds representing the profit.

The third proposition assumes that:

a. A reserve for replacement equal to $1.50 a ton is to be created out of profits before any dividends are declared.

b. Fifty thousand (50,000) tons of coal were sold at five dollars ($5.00) a ton.

c. The expenses of operation for the period of twenty years amounted to $35,000.

d. The interest on the bonds was $90,000.

e. At the maturity of the bonds there was a balance of $100,000 in accounts receivable.

In this case the skeleton ledger accounts show the transactions as follows:

Cost of Land

$100,000	$100,000

Bonds Outstanding

	$75,000

Capital Stock

	$25,000

Accounts Receivable

$250,000	$150,000
	100,000
$250,000	$250,000

Cost of Sales

$100,000	$100,000

Sales

$250,000	$250,000

General Cash

$150,000	$35,000
	90,000
	25,000
$150,000	$150,000
$ 25,000	

Reserve for Replacement

	$25,000

$35,000	$35,000

Interest on Bonds

$90,000	$90,000

PROFIT AND LOSS

Cost of sales.......	$100,000	Sales..............	$250,000
Operating expenses..	35,000		
Interest on bonds...	90,000		
Provision for reserves	25,000		
	$250,000		$250,000

BALANCE SHEET

Assets		Liabilities and Capital	
Cash	$ 25,000	Capital stock.......	$25,000
Accounts receivable.	100,000	Bonds outstanding..	75,000
		Reserve for replacement............	25,000
Total assets...... ..	$125,000	Total liabilities and capital..........	$125,000

Here as in the first proposition the bondholders are in an undesirable position. The reserve for replacement has been created, not, however, to the extent intended. The reserve should have amounted to $75,000. It amounts to only $25,000. The reason is that the profits were not sufficiently large to permit of its creation in the amount originally planned. It so happens in this case that the cash equals the reserve.

It is a coincidence in this case since there is no connection or relation in practice between the two accounts. Profits, it should be remembered, are vested in all the assets. The reserve for replacement has in this case taken the place of profits and represents therefore merely the extent to which the profits in the assets exist.

The company lacks funds with which to meet its outstanding bonds. The reserve does not provide these funds. It has no connection with the funds. All that it has accomplished is to prevent the declaration of dividends because it reduced the profits so that there were none left out of which they might be declared. Obviously if dividends are not declared there can be no dividends paid.

A fourth proposition might combine both sinking fund and reserve provisions. In such a case the balance sheet would be the same as in the third proposition except that the sinking fund cash in the amount of $75,000 would replace the general cash of $25,000 and there would be a liability of $50,000 for notes payable. This would prevent the declaration of dividends until such time as the bonds were redeemed and the reserve released.

REFERENCES FOR COLLATERAL READING:

Modern Accounting, Hatfield, Chapters VIII-XI-XII.

CHAPTER XXIII

PROPRIETORSHIP

Proprietorship is usually understood to mean ownership. In connection with business organization it signifies ownership of the assets. If there were no liabilities outstanding this would be strictly true. Such a condition rarely exists. There are few concerns which have no liabilities. The existence of liabilities has the effect of merging with the proprietor's interest in the assets that of the creditors. It may, therefore, be said that proprietorship is that ownership of the assets of a business organization which is measured by the assets, or, where liabilities exist, by the excess of assets over liabilities. Proprietorship is also called capital.

Proprietorship may be represented by various accounts, depending upon the legal type of organization. Within the different classes of organization the proprietary account may be subdivided for convenience in classification. In sole proprietorship, copartnership, or joint venture, the capital is represented by the proprietors' accounts. Thus there may be found accounts such as "John Marshall, Proprietor," or "John Marshall, Capital." This account may show not only the original investment of "John Marshall," but any subsequent credits for profits, salary, interest or capital. For convenience, separate accounts are often set up for profits, salary or interest, so that the capital account shows the investment of capital with subsequent additions to or deductions from same. Accounts for salary, interest or profits should be considered as adjuncts of the proprietor's account. They may, quite properly, appear on the books, but should not appear in the balance sheet as such. They constitute a part of the proprietorship as much as that represented by the proprietor's account. If, technically speaking, the rule of bookkeeping relative to the closing of books were complied with, they would be closed out to the proprietor's account before the final trial balance were taken. In joint associations and corporations, the proprietary accounts are those of capital stock, divided as occasion requires to represent various classes of stock, and with adjuncts for undivided profits or for surplus. Unlike sole proprietorship and

copartnership, separate accounts are maintained with the adjuncts as well as with the capital stock. This is, in a measure, due to the fact that a corporation has its capital stock fixed by law. Without the consent of the proper representative of the State the capital stock may neither be increased nor decreased. The capital stock is presumed to represent the investment of capital. By reason of the fact that it is fixed, any excess of assets over liabilities and capital stock is called surplus or undivided profits.

There is little distinction made between the two words. If a shade of difference in meaning is observed, undivided profits may be taken as profits which will be distributed within a reasonably short time as dividends, whereas surplus consists of undivided profits which have passed through the stage of availability for distribution and have been allowed to remain vested in the assets to strengthen the corporation. Surplus is rather an accumulation of profit. There can be no doubt that undivided profit and surplus attach to the capital, thereby constituting proprietorship. They are, however, kept separately in the books, for purposes of convenience, and shown separately in the balance sheet for purposes of information.

Capital stock is evidence of share ownership in the net assets of a corporation. By net assets is meant the excess of assets over liabilities. The documentary evidence is a mere piece of paper on which certain officers of the corporation have certified to the fact that the party named in the certificate is the owner of a certain number of shares. The certificates are printed because they may be issued in large numbers, and much unnecessary writing is thus avoided. The ownership is expressed in shares because of simplicity. In a corporation, for example, with one thousand shares outstanding, the owner of five hundred shares is one-half owner. There is no apparent reason why such fact could not be stated in the certificate. It would be perfectly easy to do so if the fractions were always small, but they are not. One might imagine the complication which would arise, for instance, in the U. S. Steel Corporation, where there are ten million shares. If the share ownership were expressed in fractions, the certificate of a party holding 362 shares would read 362-10,000,000ths of the capital stock.

The par of capital stock varies in different companies. One hundred dollars is probably the most common amount. Stocks,

the par value of which is fifty dollars and twenty-five dollars, respectively, are also frequently seen. Pennsylvania Railroad stock is an example of fifty-dollar par stock. Stock is not usually issued until fully paid for, although certificates are sometimes seen in circulation when only part paid. The certificates, in such cases, usually bear an endorsement on their face stating the amount paid.

A stock issue is sometimes preceded by what is known as "scrip." As used here, scrip is a receipt issued for payments on account of stock subscriptions which it is intended will be redeemed in stock. In such cases, scrip occasionally circulates in lieu of stock. Scrip is also issued at times for fractional shares of stock.

There are one or two points in connection with stocks which accountants should keep in mind when engaged in counting securities, namely: to be on the alert for stocks which are not fully paid and for stocks the par of which is less than one hundred dollars. Failure to observe these precautions is liable to result in failure to balance the par of the stocks under review.

The consideration for the issue of capital stock varies in different States. In some of the most prominent States the consideration is as follows:

Arizona—money or money's worth (general principles of law).

Delaware—cash, labor done, personal property, real property or leases.

Maine—cash, services rendered, property.

Massachusetts—cash, property, tangible or intangible, services or expenses.

New Jersey—money, property.

New York—money, labor done, property actually received for the use and lawful purposes of such corporation.

Pennsylvania—money, labor done, property actually received.

South Dakota—money, labor done, property actually received.

West Virginia—property, services or other things of value.

Capital stock is usually classified as preferred and common. The former may be preferred as to dividends, or as to assets

at time of liquidation, or both. As to dividends, it is sometimes known as cumulative preferred. Voting power may attach to either preferred or common stock or to both.

Where stock is preferred as to dividends it is understood, or in fact agreed, that a certain rate per cent. of dividend will be paid on the preferred before any dividends are paid on the common. If the preference is as to assets, it is understood to mean that in liquidation the preferred stockholders will be paid off in full out of the available assets before anything is paid to the holders of the common stock.

In the case of cumulative preferred stock the rate per cent. stipulated in the certificate accrues in favor of the stockholders, whether earned and paid or not. Accumulations in favor of preferred stockholders in such cases must be paid in full before any dividends can be paid to common stockholders. For example, where the stock in question is seven per cent. cumulative preferred, and the dividend is unearned for a period of three years, dividends to the extent of twenty-one per cent. must be paid to the holders of such stock before any dividends on the common stock may be declared.

Where such a condition exists, the propriety of showing a liability for same in the balance sheet frequently presents itself. Without giving the matter careful consideration it might appear proper that such a liability should be shown. This position may be taken on the ground that the dividend is in the nature of interest, and accrues by virtue of what might be considered an agreement on the part of the company to pay such dividends. This, however, is not true. What the company does agree to do is to pay a dividend equal to seven per cent., if earned. In the absence of action on the part of the directors in declaring a dividend no liability arises. It would, therefore, seem improper to consider the cumulative dividend as accruing, since there may never be sufficient surplus earnings to justify any dividend. It is usually conceded that no liability for such dividends should appear on the balance sheet, but a sense of honesty and fairness would seem to indicate that a foot-note stating the exact situation should be appended to the balance sheet.

In connection with proprietorship an important question arises in cases where capital stock is donated. As previously stated, proprietorship is measured by the net assets. Any increase in

the assets without a corresponding increase in the liabilities carries with it an increase in the proprietorship. Capital stock, if donated, is an asset. If the rule above stated were true, the proprietorship would be increased. The extent of the increase would depend upon the value assigned to the donated stock. To fix this value is the difficulty which is presented. In the majority of cases it is probable that the stock donated was issued originally for patents, trademarks, good-will, or similar assets, and was donated in order that it might be sold to raise cash for current needs. Obviously, it is worth what it sells for, or perhaps, rather, its value may be fixed at what it sells for. To the extent of this value it increases the proprietorship; that is, if the assets for which it was originally issued were correctly valued.

Two views concerning the treatment of donated stock obtain. The first view holds that the assets for which the stock was originally issued were worth the value assigned to them, and consequently the proceeds of the donated stock, when sold, increase proprietorship. The second view holds that the value of the assets is fictitious, and admittedly arbitrary, and that the proceeds of the donated stock should be used to reduce such valuation. For the purpose of illustrating the two views, let a case be assumed in which capital stock to the extent of $100,000 is issued for patents; $40,000 of stock (par value) is subsequently donated, to be sold for the purpose of raising such cash, and is sold for $25,000.

Under the procedure followed in accordance with the view first expressed, patents would be charged and capital stock outstanding credited in the amount of $100,000. Upon receipt of the donated stock, treasury stock would be charged, and an account, variously termed "donation account," "working capital" and "capital surplus suspense," is credited, in the amount of $40,000. At the time of sale cash would be charged with $25,000 and treasury stock credited in an equal amount. The treasury stock account will now show a debit balance of $15,000, whereas no stock remains. The donation account will show a credit balance of $40,000. At this point the treasury stock account is closed out to the donation account, leaving a credit balance in the latter of $25,000. This balance may be allowed to remain in the account, as representing capital surplus, and impliedly, perhaps, not available for dividends, or it may be closed out to

the general (profit and loss) surplus account. There would appear to be no legal objection to making this increase in the surplus available for cash dividends. To do so, however, would be to defeat the object of the donation; and since the controlling interest in the stock is usually held by the donor, such procedure would probably never take place in practice. A stock dividend for the purpose of distributing such surplus would appear more logical, and would seem to be free from objection.

In accordance with the second view above mentioned, the entries would be the same up to the point of closing the donation account. The credit balance in the donation account, namely, $25,000, is closed out against the account for patents, standing at $100,000, thereby reducing same to $75,000. The accounting which accords with this view is held by many to be conservative practice. It is surely that, and perhaps ultra-conservative.

Those who hold this view contend that the donation of the stock is evidence of the fact that the assets were not worth the par value of the stock which was issued for them. Opposers of this view hold that "judgment of the directors, in the absence of fraud in the transaction, is conclusive as to the value of the property purchased." Whether or not the value can be disproven, the practice which follows the view-point illustrated in the first case above mentioned has undoubtedly enabled mining and real estate development companies to take advantage of unsuspecting investors.

In recent years many states have enacted laws making provision for capital stock without par value. In some states both preferred and common stock is included. Where preferred stock without par value is issued, a redemption value must be placed on each share. While this procedure may appear to create a ridiculous situation, it has the effect of making possible the issue of the stock at such price as the directors may fix. A share of common stock without par value denotes the ownership of an aliquot part in the excess of assets over liabilities. Stock without par value while apparently simplifying matters creates a number of situations in which there are knotty problems. Laws of the particular state in which the corporation is organized should always be consulted, particularly as to stated capital, surplus, and dividends.

CHAPTER XXIV

THE INCOME-FROM-SALES GROUP

This group comprises gross sales, on the one hand, against which will oppose such items as return sales, trade discount, allowances. rebates, outward freight, and outward cartage. The result of opposing these last named items against the first is income from sales, or primary income. It is to be understood that, notwithstanding the fact that a concern selling goods has been selected as an illustration, the theory of accounting involved would apply in cases of concerns selling services, transportation, or what not.

A sale is a contract between two parties, wherein certain specified goods ready for delivery have been offered and accepted. A sale must, therefore, comply with the legal requirements of a contract. It is not necessary for payment to be made in order that a sale may take place. It is, of course, vitally important to the vendor that he receive pay for his goods, but for the purpose of this discussion the payment may be treated as a secondary matter. If there has been a meeting of the minds with regard to certain specified goods, and such goods are ready for delivery, the sale has taken place. The price attached to the goods fixes for the vendor the gross income from the sale. It will thus be seen that there is established an item called gross sales.

In certain instances, goods having been once sold are, for one reason or another, returned, and accepted by the vendor. This gives occasion for the account—returned sales or sales returns. Such items should be considered not as reducing the gross income from sales, but in effect a cancellation of the sales which were originally made. It would, accordingly, seem proper to deduct sales returns from gross sales and show the result as the net sales. Whether or not an account is raised on the ledger is immaterial; a caption for same should appear, however, in any comprehensive statement of income. If it were desired to have an account for net sales on the ledger, the account would be raised only at the time of the closing of the books, and would serve as a sub-group account.

The selling price of goods is composed of selling cost plus profit. Selling cost is made up not only of cost of goods before the expense of selling the goods, but the expense of administration and the expense of securing or protecting capital, and allowances or deductions which it will be necessary to make from the selling price of goods. The last named items include those previously mentioned, such as trade discounts, allowances, etc. These items appear to bear a close relation to the selling price, and, having been considered in fixing the selling price, and it having been conceded in advance that the selling price will be reduced to the extent of these deductions, it would appear logical to treat them as deductions from sales. It is immaterial whether or not such an account be maintained in the ledger, but if such were the case it would be set up only at the time of closing the books, and the items embraced in this sub-group closed into the account.

Trade discount is an expedient for adjusting a list price. To one customer the goods might be quoted at $2.00 a dozen, less 10 and 5; to another customer the price might be $2.00 a dozen, less 10 and 5 and 2. The same goods might be sold one year at $2.00 less 10; another year at $2.00 less 7½. Instead of raising the list price the discount might be lowered. The question might be asked, "Why not change the list price instead of going to the extent of the trouble involved in changing a number of discounts?" The objection to this would probably be seen when it is realized that some concerns publish extensive and expensively illustrated catalogs and price lists. By changing the discounts it is not necessary to alter the catalogs or price lists. It will thus be seen that trade discount is a useful expedient for adjusting prices. The point especially to be kept in mind in this connection, however, is that the vendor concedes in advance, and takes into consideration in fixing his selling price, the fact that he will receive so much less for his goods. It has been argued by some authors that an account for trade discount has no place in the general ledger. The statement has even been made that such account is never found in the general ledger. It is modestly suggested by the author that if financial statements are to be comprehensive an account for trade discount might with propriety exist. It is conceded that most concerns deduct trade discount from the face of sales invoices and enter such invoices in their books net. To

enter them broad would undoubtedly involve some additional work on the part of the bookkeepers. In a large concern, however, where a highly developed departmental organization exists, and the fixing of prices is delegated to the head of the sales department or the sales manager, an account for trade discount would undoubtedly serve as an index of the efficiency of the sales manager to a certain extent. It is questionable, of course, whether the expense involved in the additional work of recording the invoice broad would offset the benefits accruing to the administrative officers from the information furnished by the keeping of an account for trade discount. The practice to be followed should be guided entirely by a decision of this kind in each particular case. It is not possible to state a general rule concerning it.

Allowances may cover defective goods, or goods broken, damaged or lost in transit. Allowances have the effect of reducing the amount which will be received from the sale of goods, and will usually be deducted by the vendee in settlement. They are usually represented by credit memoranda, and on account of their close relation to sales, and the fact that they affect the amount which will be received from sales, they are treated as deductions from sales.

Rebates are of much the same nature as allowances. It may appear somewhat inconsistent to even mention the subject of rebates, since the practice of rebating is prohibited by law. The author respectfully refrains from offering any suggestions as to what should be done if rebates are actually found. It will suffice, perhaps, in connection with this topic, to state that rebates are, in effect, special allowances, and, if they exist, bear the same relation to sales that allowances bear.

Some explanation will, perhaps, be necessary as to the reason for treating outward freight as a deduction from sales. It is probable that the most common practice is to treat it as a selling expense. It seems, however, not to be properly included in such group if a sale is conceded to have taken place when the goods ready for delivery had been offered and accepted. The expense appears rather to be one of delivering the goods than selling them. It is argued by some that the matter of delivery is an important factor in determining the sale; that in certain instances it serves as an inducement to the purchaser; that many times, if the goods were not delivered by the vendor, they would not be

sold. While this may be true, the fact still remains that if the vendor bears the expense of delivering the goods he receives that much less for his goods, and he has taken that fact into consideration in fixing his selling price.

Outward cartage is in the same class with outward freight. The account may contain merely items of expense in connection with services rendered by some drayman, or it may contain a proportion of the stable expenses, etc., of the concern which ships the goods. In a case of the latter kind the stable expense is divided by the tonnage hauled, and the rate thus obtained is multiplied by the number of tons involved in the outward cartage in order to obtain the amount applicable to outward cartage.

The relation of sales deductions to sales will be seen in the following tabulation:

Gross sales		$100,000.00
Less sales returns		5,000.00
Net sales		$95,000.00
Deductions from sales:		
Trade discount		$10,000.00
Allowances:		
Defective goods		$100.00
Breakage		200.00
Damage		300.00
Loss		400.00
Rebates		2,000.00
Outward freight		3,000.00
Outward cartage		500.00
Total deductions from sales		$16,500.00
Income from sales		$78,500.00

In closing the books, the various detail accounts will be closed into the group account, "income from sales," which will in turn be closed into profit and loss.

CHAPTER XXV

THE COST-OF-SALES GROUP

The cost of sales may be generally divided into three elements, namely: materials and supplies, labor, and manufacturing overhead. This group corresponds to the expense-of-operation group in organizations other than a manufacturing concern. The materials and supplies include, in addition to the gross purchases, inward freight and inward cartage, the latter item being either a direct charge for drayage or a proportion of the stable expense. The salaries and expenses of the purchasing department are also properly chargeable to materials and supplies.

The labor is divided into direct and indirect, the latter constituting the wages of foremen, laborers and helpers. Generally speaking, nothing is gained by classifying labor as direct and indirect. Where a cost system obtains, however, it is desirable that this classification should be made, because of the fact that one of the prime objects in cost accounting is to charge direct to jobs as many items as possible. The direct labor, constituting the work of the employees directly engaged in working upon the product, is something which can be specifically allocated to jobs; the indirect labor, such as the work of foremen, laborers and helpers, cannot be specifically allocated. Such division of labor facilitates the work of the cost department and permits of agreeing the cost records with the general books, by reason of the fact that indirect labor is thrown into the manufacturing overhead. Manufacturing overhead, or factory expense, as it is frequently called, includes superintendence, salaries of clerks keeping the factory records, factory office expense, heat, light and power, factory supplies, repairs and renewals of shop tools and minor operating equipment, depreciation of machinery and other major operating equipment, etc.

In cost accounting, materials and supplies and direct labor are combined, and constitute what is known as prime cost. Prime cost plus manufacturing overhead equals manufacturing cost. As was previously pointed out, one of the items included in the cost of materials was inward freight. Theoretically, inward freight is a part of the cost of materials; practically, it becomes

almost impossible to connect the inward freight with the items of materials and supplies which it covers. To do so it would be necessary, perhaps, to distribute the freight corresponding to a certain way bill over several different invoices. The share of freight thus pro-rated to the various invoices would have, in return, to be distributed over the various classes of items making up the invoice. The distribution to classes of items having been accomplished, it would then be necessary to divide the amount so ascertained by the number of units pertaining to the particular class in question, in order to obtain a unit cost for freight. The amount of clerical labor involved in such calculations is so great that it is probable that most concerns do not attempt such a distribution in practice. It is a widespread custom to include inward freight in the overhead rather than attempt to load it to materials and supplies. The same remarks apply, possibly with greater force, to inward cartage. Theoretically, it is very properly included in the cost of materials; practically, it becomes a difficult matter to do so. The situation will be affected proportionately by the conditions which exist. If a concern has its own stable organization, and does all its own hauling, the stable expense must first be distributed to inward cartage and outward cartage. The proportion corresponding to inward cartage will then have to be pro-rated, presumably on a tonnage basis, over the incoming invoices, since it is next to impossible to connect in any other way the service rendered by the stable with the materials and supplies hauled.

Much discussion has arisen in the past as to the proper allocation of the salaries and expenses of the purchasing department. It has been contended, on the one hand, that the purchasing officer was an administrative officer, charged with exercising his judgment as to purchases, and in no way connected with the technical or operating department of the organization. As such, the salaries and expenses of his department would very properly be charged to administrative expenses. On the other hand, it is contended that the services of this office are rendered entirely for the benefit of the manufacturing or technical department; that the concern in question is not engaged in buying and selling materials and supplies, and that the salaries and expenses of the purchasing department should be charged into the cost of materials and supplies, because of the fact that such services

and expenses were incurred in connection with the materials and supplies to be used in the manufacture of goods. The latter point of view would seem to be the most logical one. It is true that the purchasing officer exercises, in a way, both of the functions above described. The latter, however, seems to very greatly overshadow the former. The remarks which were made with regard to inward freight and cartage apply with equal force to the salaries and expenses of the purchasing department. Theoretically, they add to the cost of materials and supplies; practically, it is inexpedient, on account of the clerical work involved, to pro-rate them on a unit basis. They are, accordingly, included in the overhead.

In connection with purchases there are several classes of items which should be mentioned. Prominent among these are purchase returns, trade discounts, allowances and rebates. These items bear the same relation to gross purchases that sales returns, etc., bear to gross sales. In short, they are deductions from the gross purchases and the result gives the true cost of the purchases. It will probably not be necessary to discuss them here, since similar items relating to sales were discussed in the preceding chapter. Neither is it proposed to discuss here cash discount, rent of factory, taxes and insurance on factory property, etc., for the reason that such items will be discussed under a separate group, entitled "deductions from income."

In arriving at the cost of sales it must be borne in mind that manufacturing cost is not cost of goods sold. Manufacturing cost is affected by the difference in inventory of goods in process and the difference in inventory of finished goods. The cost of sales is arrived at logically by beginning with materials and supplies, adding labor and manufacturing overhead, allowing these three items to represent goods in process, which, when completed, will be transferred to finished goods. As goods are sold they are charged to cost. This method, which may be called the direct method, becomes possible only when there is a cost system. Where no cost system obtains, and it is necessary to procure the information concerning the cost of sales from the general books, it is obtained by what is known as the inventory or indirect method. The respective accounts for materials and supplies, labor and overhead are closed into the account for manufacturing. This account represents the goods in process. If at the end of the

period an inventory of goods in process is taken, and this inventory is applied to the manufacturing account, the difference will constitute the cost of goods transferred to finished stock. In the same way, if an inventory is taken of the finished goods, and this inventory applied at the end of the period to the finished goods account in the general ledger, the difference in the account will then represent the cost of the goods sold.

An ideal manner of closing the books where a statement of income and profit and loss is to be prepared is to open an account called "cost of sales," and to close into it the items included in this group. Beginning with the account for materials and supplies, the first item will constitute the difference in inventory of materials and supplies. The subsequent charges pertaining to materials and supplies will be gross purchases, inward freight, inward cartage and the salaries and expenses of the purchasing department. The credits pertaining to materials and supplies will be purchase returns, trade discounts on purchases, purchase allowances and purchase rebates.

At this point it may be advisable to pause for a moment to discuss a point with regard to the inventory of materials and supplies. There will frequently be instances in which the item of inward freight is sufficiently large to justify setting up a part of this freight in the inventory. For example: A foundry buying large quantities of pig iron, and having to pay the inward freight, would be justified (if at inventory time there remained—out of purchases of a hundred thousand tons—eighty thousand tons,) in setting up in the inventory eight-tenths of the inward freight on the pig iron. Theoretically, the same thing applies to inward cartage, although the items are usually so small as not to warrant this procedure.

Resuming now with the items making up the cost of sales, the account for direct labor will be closed into the account "cost of sales." The various items of factory expenses will be treated likewise. The account for goods in process inventory, which showed the inventory on hand at the beginning of the period, will be treated with the inventory on hand at the end of the period. The difference in this account will be closed into the cost of sales. In a similar way, the account for finished goods inventory, which showed on the debit side, the inventory at the beginning of the period and on the credit side, the inven-

tory at the end of the period, will be closed out to the cost of sales.

It will thus be seen that the cost-of-sales account will contain the precise information necessary to prepare the second section of the statement of income and profit and loss, as follows:

Materials and supplies:	
Gross purchases	$75,500.00
Less-purchase returns	500.00
Net purchases	$75,000.00
Add—Inward freight	400.00
Inward cartage	200.00
Salaries and expenses purchasing department	1,400.00
Total cost of purchases	$77,000.00
Deduct—Trade discounts on purchases	$500.00
Purchase allowance	400.00
Purchase rebates	100.00
Total deductions	$1,000.00
Net cost of purchases	$76,000.00
(Add or) deduct difference in inventory materials and supplies	5,000.00
Cost of mat'ls and supplies consumed	$71,000.00
Labor—Direct	25,000.00
Factory expense:	
Superintendence	5,000.00
Labor, indirect	600.00
Salaries of clerks	2,000.00
Factory office expense	400.00
Heat, light and power	750.00
Factory supplies	250.00
Repairs and renewals	50.00
Depreciation of machinery, etc	950.00
Total manufacturing cost	$106,000.00

Add (or deduct increase or) decrease in inventory of goods in process............	10,000.00
(Add or) deduct increase (or decrease) in inventry of finished goods.............	85,000.00
Total cost of sales..................	$31,000.00

The second section of the income statement will not always appear in as great detail as the above, for various reasons. Fundamentally, however, whether shown in detail or condensed, the cost of sales remains as indicated.

CHAPTER XXVI

GROSS PROFIT ON SALES AND TURNOVER

Gross profit on sales forms the subject of considerable discussion in accounting. It is obtained by deducting the cost of sales from the income from sales. It is the first, or prime, profit obtained by placing against the income derived from sales the cost of the goods themselves. It does not take into consideration the expense of selling the goods, the expense of administering the business, nor any expense in connection with the obtaining or employment of capital. The discussion which arises in connection with gross profit is whether or not it should be shown in relation to cost or to the sales price. It is quite common for one to hear the expression, "The gross profit is sixty per cent." It is not clear, however, when such a statement is made, whether this percentage is ratio of gross profit to cost or ratio of gross profit to sales. A careful analysis of the question fails to reveal any specific advantage other than a desire for uniformity in either method of treatment. It has been claimed that the ratio should be based on cost, because of the fact that the volume of sales is liable to fluctuate widely. This reason appears fallacious, because of the fact that if sales fluctuate cost should fluctuate accordingly. That either basis is correct so long as it is consistent would appear to be true. As an illustration, let it be supposed that the sales price is $1,000, the cost $600, and the gross profit $400. It will then be true that the gross profit is 66 2-3 per cent. of the cost and 40 per cent. of the selling price. If this one case be multiplied by the great number of transactions which might be expected to enter into the accounts of a large concern during the period of a year it will then be seen that if this transaction is a typical one gross profits for the year should be about 66 2-3 per cent. of cost, or 40 per cent. of sales. It would seem to be immaterial which basis were selected. Statistics become valuable only when they can be compared. In the case under discussion at present the comparison would be either with an organization engaged in a similar line of business or a comparison of the figures for this period with those of another period. It would not be consistent to compare the ratio of gross

profits in the case of organization A, if this gross profit were based on cost, with the gross profit of organization B, the gross profit of which was based on sales. Nor would it be consistent to compare the gross profit of this period, when based on cost, with the gross profit of the next period when based on sales. The basis would seem to be entirely a matter of a simple arithmetical calculation. Two and two will make four; three and one will make four. The ratio which either one of the component parts bears to the whole will change in accordance with changes in the component parts. Two is 50 per cent. of four; one is 25 per cent. of four; while two is 100 per cent. of two, and one is 50 per cent. of two. If four changes to five, or even six, the relation of two and one, respectively, to either five or six will change. If the sales increase and the cost remains constant, the ratio of gross profits to sales will increase. If sales decrease, and the cost remains fixed, the ratio of gross profits to sales will decrease. This situation, however, is largely theoretical, because when sales increase or decrease they are usually attended by a corresponding increase or decrease in the cost. The reverse would usually be true. If cost increases or decreases, it should be due to increase or decrease in sales. The percentage of gross profits, whether determined on cost or sales basis, should not be affected fundamentally by fluctuations in either cost or sales.

Some time ago a trade journal published an article by a representative of one of the largest manufacturing concerns in the country. The article occupied four columns of space. It was based on the following question: "A certain article cost $1.00 wholesale. What will it have to be sold for to allow a profit of 10 per cent. after allowing 22 per cent. for cost of doing business?" It was said to be a very simple question, and one that every retailer has to answer in his own business every day, but that seven hundred and fifty out of one thousand retailers answered it wrong. One thousand retailers would probably have answered the question correctly if it had been a fair one. It is a slight reflection on the intelligence of seven hundred and fifty retailers that they were not sharp enough to ask the question, "Is the profit of 10 per cent. on sales or on cost?" and it would appear to be merely a coincidence that two hundred and fifty out of the one thousand arbitrarily selected the sales basis. It

is not at all improbable that the whole proposition was an advertising scheme, simply to involve retailers in discussion and attract attention to the concern which propounded the question. It serves here, however, to illustrate the importance which attaches to the subject. The only objection that the author knows to using the sales basis is that the transaction will never show 100 per cent. profit. Just as soon as the elements of cost and expense are introduced into a sale it becomes impossible to make 100 per cent. of profit on the sale. Frankly, this does not seem to constitute a consistent objection to this method. The cost method seems the more logical, however, since the ordinary merchant, in fixing a price upon his goods, begins with their prime cost, and adds the expense of selling them and the expense of administration, etc. To all of these he then adds the percentage of profit which he desires to realize, and such figures constitute his selling price. Cost necessarily precedes selling price. Hence it would seem illogical for a man to settle upon a selling price and then deduct the profit which he desires to make, in order to ascertain what his cost is to be.

The percentage of gross profit is undoubtedly a valuable means of presenting comprehensive information as to profits. A certain line of goods showing a gross profit of 60 per cent. for the present year should, under precisely similar conditions, show the same percentage of gross profit during the next year. If the gross profit is different, then the cause must be sought in one of two places—sales or cost. If the sales have increased during this period as compared with the next preceding, whereas the cost has remained practically the same, the cause of the increase in profits may be traced either to lower purchase prices or a greater number of completed sales without returns or allowances. This indicates good judgment and efficiency on the part of both the purchasing and sales departments. If the sales have decreased while the cost remains constant the reverse might be true. Sales remaining the same, with costs either increasing or decreasing, might mean lack of initiative or ability on the part of the sales force with either an increase or decrease in the efficiency of the purchasing and manufacturing departments, in accordance with either the increase or decrease in the cost of the goods.

Statistics of this nature are not conclusive. They are merely

indicative. Without them the situations such as have just been described would, perhaps, never be thought of. They are expedients which are inexpensive and at the same time valuable. They are made use of very largely by organizations constructed on a departmental basis, for judging the capacity and ability of heads of departments. They give clues, so to speak, which may be investigated, and point the way to information which may be of real value to the administrative force. The author remembers one case in which an expedient growing out of suspicions aroused by decreasing gross profits was resorted to to apprehend a bartender who was suspected of failing to account for all the liquor which he dispensed over the bar and instead putting a part of the proceeds into his own pocket. Acting on the suspicion, a series of tests were made to determine approximately what the gross profit on the various kinds of liquors should be. It was ascertained that a bottle of whiskey contained approximately so many drinks, which could be sold for fifteen cents each. The sale price of a bottle of whiskey was, therefore, ascertained. It was known what the whiskey cost. Thus it became possible to determine the gross profit and the ratio of gross profit to cost. Similar tests were made with beer, fancy drinks and bottled goods. These being used as a basis for judging the entire sales of the bar, when the usual calculations for the subsequent month showed the cost of sales respectively, it was an easy matter to apply the respective percentages of gross profit and ascertain the approximate amount of sales for the month. When the sales reported and accounted for fell far short of this amount the management had little hesitancy in charging the bartender with the irregularity, which he admitted.

The establishment of inventories by the gross profit method is frequently resorted to in the settlement of fire losses. Suppose, for example, that a fire occurs at some time other than that at which the inventory has just been taken. Unless detail stock records have been kept and preserved the amount of stock on hand at the time of the fire must be approximated. Sales records will in most cases be intact because of having been put away in the safe. From such records or the sales account in the general ledger or both the sales since the last physical inventory may be

established. The application of the average gross profit for three or five years next preceding the fire will give a fair approximation of the cost of the goods sold since the last inventory. With this information available a fairly accurate estimate of the inventory at the time of the fire may be obtained. Normally, inventory at the beginning of the period, plus purchases,—less inventory at the end—equals cost of goods sold. From this it follows logically then, that the inventory at the beginning of the period plus the purchases—less the cost of the goods sold—equals the inventory at the end of the period, which in the case in question means the date of the fire. Such is the manner, making due allowance for the goods in process, in which the estimated value of the stock is arrived at and becomes the basis for fixing the amount of the loss.

Turnover is a term sometimes applied to the cost of sales. It is a term which has come into use in connection with accounting, and constitutes one of the many technical expressions which might better be avoided. When one uses the expression "cost of sales" every one understands what is meant. When one uses the expression "turn-over," a discussion usually arises as to whether cost of sales or something else is meant. Mr. R. H. Montgomery, C.P.A., in his book on "Auditing," suggests the following definition, in which the author concurs: "The turn-over of a merchant or manufacturer represents the number of times his capital, in the form of stock in trade, is reinvested in stock in trade during a given period." Mr. Montgomery gives the following formula for ascertaining the turn-over: "Take the starting inventory, add the purchases or cost of manufactured goods, and deduct the inventory at the end. Divide the total by the starting inventory. The result will be the number of times the capital invested in stock in trade has been turned over during the period."

It will be seen that this expedient may also be used to gauge the efficiency of heads of departments in a concern such as a department store. The number of times which the stock has been turned over will indicate the efficiency of the sales force.

In a large retail shoe store in New York City, which is organized on a departmental basis, the turn-over is ascertained monthly with regard to each department and is useful in admin-

istering the business. If the goods in a given department have not been turned over as many times as they should have, an inquiry is made to determine the cause. Failure may be due to a falling off in the demand for the goods offered by that particular department, or by failure of clerks to satisfy the requirements of customers. A little attention is then given to the department in question, with a view to ascertaining the specific cause. If the trouble is found to rest with the clerks, the inefficient clerks are eliminated. A practical application of the turn-over is best seen in organizations similar to the one just mentioned, where the operations can be localized and circumscribed in departments.

The margin of profit on merchandise frequently depends upon the number of times it may be turned over. Almost everyone in New York City is familiar with candy at a "penny a pound profit." A penny a pound would represent an insignificant profit if it were not for the great number of pounds sold. No doubt if one were to ask of this manufacturer how he can afford to do business on this basis he would reply "because I am able to turn my money over so quickly." The goods are sold for cash and the profit realized as soon as the goods are sold.

A merchant with a stock of $10,000 which he sells at a profit of 2% will, if he sells such a quantity and value of merchandise six times in the course of a year, be at the end of the year in the same position with regard to profits as the man who sells $20,000 worth of merchandise at 6%. Each will have made a profit of $1,200. Calculate the position of the respective merchants if each is obliged to borrow his entire capital at 4%. The first one will realize a net profit of $800 while the second realizes a net profit of $400.

The suggestion of interest raises a question which might properly accur to one giving thought to the subject. "Is the turnover dependent upon the realization of profit in the form of cash?" In answer it may be said that it is not. Profit is the difference between the cost and selling price of goods and may appear as vested in cash, accounts or notes receivable, etc. When the goods have been sold or turned over the profit arises even though not collected. If goods are sold on credit, it is to be presumed that they may be purchased on credit and on terms equivalent to those on which

they are sold. If necessary to borrow funds with which to finance the transaction, the expense of interest will serve to decrease the amount of profit. Such a situation must not be overlooked by the administration in planning the financial operations, but it should not be permitted to cloud the principal issue with regard to the turnover.

REFERENCES FOR COLLATERAL READING:

Journal of Accountancy, Vol. XII, page 346.

CHAPTER XXVII

THE SELLING-EXPENSE GROUP

This group comprises the expenses relating to the sales department, advertising, and such miscellaneous expense as entertaining customers. The sales department expenses may be divided into those having to do with the office and those of the salesmen. The office expenses will consist of the salaries of the sales manager and clerks as well as the miscellaneous office expenses. The expenses of the salesmen will include salaries, traveling and commissions. There is nothing especially peculiar concerning the salaries of the sales manager and clerks. At times, the amount chargeable to the salary of the sales manager is a part of the salary of some officer of the company whose time is in part devoted to selling and the management of the sales department. Neither do the salaries of the salesmen call for any particular comment. Traveling expenses will include all expenses from the time the salesman leaves the office until he returns from his trip. Most concerns require detailed expense reports from their salesmen, classifying the expenses into traveling, subsistence and miscellaneous. Traveling includes the car or taxicab which takes the salesman from the office to the train, his railroad fare to point of destination, including Pullman and meals on the train; also the cab or car from the station at destination to the hotel. Subsistence covers his board and lodging at the hotel, while miscellaneous expenses cover items like stationery, telegrams, etc. It is quite the custom to advance funds to salesmen for traveling expenses, the funds to be accounted for either monthly, or at the end of each trip if the traveling is not continuous. Where a salesman is constantly on the road, the fund is carried the same as the ordinary working fund. He will be advanced a sufficient amount to cover his expenses for the month, for example. At the end of each month he sends in his expense report, and receives in return a check in the same amount. Thus, on the books of the general office he will at all times be charged with the amount of his fund.

A salesman may receive not only salary but commission for his services. In some cases, salesmen work entirely on com-

missions. In both these cases a somewhat unique question frequently presents itself. To illustrate the point, take, for example, the straw hats which will be sold by retailers during the coming spring and summer. These same goods were probably sold by salesmen representing wholesalers who were on the road, completed their sales, received their salaries, traveling expenses and commissions prior to December 31. The question which arises is this: "Is it proper to charge such expenses against one year, although contracts for delivery are made in that year, when the actual delivery of the goods will not be made and sales recorded until the subsequent year?" Theoretically, it is not correct to do so, for the reason that while legally the sale was made during one year the sales were not recorded as such, in so far as the operations of the business are concerned, until a subsequent year. Theoretically, the income of the subsequent year profited by the sales. It would also seem, as a matter of justice, that it should be charged with the expenses attending these sales. Cases have been known where concerns attempted to suspend salaries and expenses of salesmen and apply them against the period in which the sales were recorded. In the majority of cases, however, it is held that one period will offset another, or that the matter will be evened up in the long run, and it is generally a waste of time and effort to carry these items in suspense and apply them properly.

Commissions are usually computed on sales prices. In some cases they are credited to the salesman's drawing account, against which advances are charged. It becomes necessary in some cases to keep elaborate records of commissions, because of the tendency on the part of salesmen to put through orders which are not bona fide, and in that way attempt to collect larger commissions than they are entitled to. Concerns which have commission contracts with their salesmen are put to no end of trouble many times through returns and cancellations. Most concerns pay commissions to salesmen only on sales which materialize, or, in other words, net sales. Real estate concerns and insurance companies which employ salesmen and agents especially require elaborate books and records dealing with commissions. The subject of agents' commissions in the insurance line is sufficient for a small book in itself. It may be mentioned, in passing, that the principal distinction to be borne in mind by

insurance companies is the payment of commissions on first-year premiums and renewal premiums. The rate differs on the two classes of premiums, being much greater in the case of first-year than in the case of renewals. It is, therefore, important that the company distinguish between the two.

Advertising is one of the most important items in this group. Advertising may embrace several different forms, namely, the display of advertisements in newspapers and magazines, the display of advertisements on billboards, circular letters, souvenirs, etc. It was also suggested to the author on one occasion that the cost of a sign be charged to advertising. To this no particular exception could be taken. Surely no one would object to charging the expense of operating an electric sign to advertising, and the question of charging the cost of the sign would, in either case, not be whether or not it was approximately chargeable to advertising, but as to whether or not it was desired to capitalize an item of such considerable cost. A well-known department store, which maintains an auditorium and an entertainment daily for its patrons, charges, it is understood, the expense of conducting this feature of the store to advertising. Any legitimate expense having to do directly with advertising may properly be charged to the advertising account. The account has, however, in some instances, become a general dumping-ground for miscellaneous items—not excepting rebates. One instance is recalled in which a small concern, doing practically no direct advertising, had an expense account for advertising (rebates) running into thousands of dollars. While this procedure was not illegal at the time it occurred, it was not justified. The proprietor attempted to justify it on the theory that this was one means of attracting customers. The fallacy of such theory will be apparent after a moment's thought.

The question of vital importance with regard to advertising is, first, whether or not it is prepaid; and second, if prepaid, in what manner and at what rate is it used? A concern engaged in circularizing would not be warranted, according to the best accounting practice, in charging immediately to expense the cost of printing 250,000 circular letters and envelopes. It would be proper, rather, to charge these letters and envelopes to expense approximately as used. The rule is to charge advertising, not to the period in which it is contracted for, or paid for, but to

the period in which it is used. Thus, an organization contracting for $30,000 worth of advertising for a given year would not charge the entire $30,000 to expense immediately, nor at the time of paying for the advertising, but at the rate of $2,500 a month, if the advertising were to be spread over a period of a year. The value of prepaid advertising, in the case of enforced realization and liquidation, will depend upon the arrangements which can be made with the advertising media or agents.

The accounts representing the items making up this group are closed into the account, "selling expenses," which account corresponds to the third section of the statement of income and profit and loss, as follows:

Sales department expenses:	
Salary, sales manager..................	$2,000.00
Salaries of clerks......................	1,500.00
Office expenses........................	500.00
Salesmen:	
Salaries	1,000.00
Traveling	1,000.00
Commissions	1,000.00
Advertising	2,500.00
Entertainment of customers................	500.00
Total selling expenses.................	$10,000.00

CHAPTER XXVIII

THE ADMINISTRATIVE-EXPENSE GROUP

The principal items making up this group are salaries of officers, salaries of clerks (keeping general records), directors' fees, printing and stationery, postage, telephone and telegraph, traveling of officers and clerks, legal expenses and miscellaneous office expenses. It has been held by some that the title of this group should be made broader, and called administrative and general expense. It has seemed to the author that this is entirely unnecessary, because of the fact that any item of expense, general in its nature, is, of necessity, a matter of administration, since it does not apply specifically to the manufacture nor to the sale of the goods, but rather to the administration of the business. It is, therefore, thought that administrative expense is sufficiently broad.

With regard to the above items, it may be said that in certain large organizations the internal scheme of functional administration throws a peculiar light upon them. Such an organization may have an internal division of administration corresponding to the offices of the president and vice-president, comptroller or auditor, secretary, treasurer, general solicitor, etc. The accounting department will naturally be presided over by the comptroller or auditor. The cashier will naturally be subsidiary to the treasurer. Under such an arrangement the administrative expense may, with respect to each department, be divided on the original records into salaries and expenses. It is not uncommon to find separate pay-rolls for the various offices above mentioned. It is, however, uncommon to find expenses so treated. As a rule, office expenses originate on the general books rather than with the various offices, and are charged direct to the general administrative office expense account in the general ledger. The salaries, likewise, while they may be kept on separate pay-rolls for the purpose of classifying them, with regard to the various offices, are usually charged collectively to the salaries account in the general ledger. While it may be desirable in some cases, as a matter of cost concerning the running of the various offices, to distribute salaries and expenses, such distribution should be made

a matter of subsidiary treatment, and should not be taken cognizance of on the general books.

It is evident that many of the items appearing in this group will be subject to accrual. It is doubtful, however, if many concerns give attention to this matter in closing. This is probably due to the fact that the amounts involved are usually small and unimportant, and it is not considered worth while to bother with them. The most striking exception to this general statement is probably salaries of officers and clerks. This is due to the fact that the salary-roll may, at times, be of considerable size and the salaries paid weekly. It is not so apt to be true in the case of salaries of officers as in salaries of clerks. Salaries of officers are, as a rule, paid by the month, while salaries of clerks are apt to be paid weekly. Where the clerks' roll is of sufficient size, and the end of the month happens to fall on Thursday or Friday, it might be worth while to accrue the salaries for the period intervening between the end of the month and the previous Saturday.

Separate accounts should be maintained in the general ledger for salaries of officers and salaries of clerks. This is objected to at times by the officers, who do not wish to see the disparity in amounts which may result from an overloaded salary-roll for officers. It is well, however, to bear in mind that financial statements are sometimes required for presentation to stockholders, and such division facilitates the preparation of a comprehensive statement in this respect. Stockholders may be especially interested in seeing the relation which salaries of officers bear to salaries of clerks, even though the officers are not interested in this information.

Directors' fees, while of the same general nature as salaries, should be kept separate. Fees are paid to directors for services in attending directors' meetings. The directors, as representatives of the stockholders, may, through their attendance at the meetings, assist in the formulation of the company's policies. While they receive compensation for these services, the compensation is based upon attendance at meetings, and is slightly different from a salary which is paid for regular and continuous service.

Printing and stationery, as well as the other items appearing in this group, such as postage, telephone and telegraph, permit

of little discussion at this time. Printing and stationery, like postage, may be a direct charge to the expense account, in accordance with its consumption, or as a balance remaining in the account after inventory for these items has been deducted and set up as an asset. Telephone bills are usually rendered for the month, in advance, and, of course, should not be accrued. It will rarely occur that they have been paid in advance. What usually happens, however, is that telephone bills for a given month in advance will contain also the calls of the preceding month in excess of the number stipulated in the contract, and any long-distance charges. While these latter items are technically a liability at the end of the preceding month, they are usually so small in amount as to not warrant any attempt to provide for their accrual.

There may be times when it becomes necessary to draw the line between periods with precision, and at such times it may be necessary to charge excess calls and long-distance charges to the preceding month, in which they belong. Telegraph bills are usually rendered after the month in which the service has been rendered, and, if precision is to be maintained, will have to be provided for through accrual at the end of the month.

Traveling expenses of officers and clerks are to be distinguished from traveling expenses of salesmen. The latter is, of course, chargeable to the appropriate account in the selling-expense group. The importance of making this distinction will be evident when it is observed that the traveling of officers may, at times, be somewhat heavy, and unless this distinction were made the salesmen's expenses would be unduly laden. This transgression might be especially apparent where a concern maintains a staff of traveling auditors. It is quite probable that the traffic department of a railroad would object to being charged with the expenses of the company's traveling auditors.

Legal expenses may be the expenses of conducting a legal department, retainers paid to counsel, or charges for legal services occurring irregularly. In connection with the last item it may be remarked that under certain circumstances, where retainers are of sufficient size, they may be taken into consideration in closing the books, and the unearned proportion set up as a deferred charge to expense.

Miscellaneous office expenses will include such items as sundry

office supplies, maintenance of office equipment, and dinners for clerks working evenings. It is, of course, probably true that the overtime, if any, paid to such men should be charged to the salary account, and there is no reason, as a matter of exactness, perhaps, why dinner money should not also be charged to the salary account. It is thought to be the general custom, however, to charge this latter item to the office expenses.

Having exhausted by classification the majority of items which appear ordinarily in the administrative-expense group, there are still certain expenses which have not been included, and which, in the opinion of the author, should appear in this group. Such items are usually referred to as general expenses, and seem to be the principal reason advanced by parties who so contend for making the general title of this group "administrative and general expenses." The particular items in mind are those, such as donations, gratuities to employees, bonuses at Christmas time, and miscellaneous gratuities to outsiders whereby the commercial comfort and work of the company is facilitated. Gratuities to employees may be dismissed with a word, namely, that such expenses are equivalent to an addition to the salary or wage of the employee. It would seem that there should be no reason for excluding, or considering separately, bonuses and gratuities to outsiders, since administrative expense is intended to cover not only the direct administrative expenses but the expenses of the administration. It is true that they might be somewhat general in their nature, and not possible of inclusion in the classification thus far presented. They are, however, expenses which are considered necessary to the welfare of the company, and, on account of being incurred by administrative officers for the benefit of the company, may be logically included as administrative expenses. A donation to a fire department by a concern having a plant located in New Jersey, or a donation to a local Y. M. C. A., would seem not to be without the scope of argument in favor of treating such items as administrative expenses, since on the one hand the company may expect to receive indirect benefit from its contribution to the fire department, and, in the same way, indirect benefit through its employees from its contribution to the Y. M. C. A. A donation to charity seems to be the item on which most of the argument against the inclusion of such general items in administrative expense rests.

It is claimed that no benefit, direct or indirect, accrues to the company from such a donation. This, however, seems small ground for argument, since it must be admitted, it seems, that the company would not make such donation except it expected to be held somewhat in esteem through its general interest in the affairs of the community, for which reason such an expense would seem to be pertinent to the administration of the company's affairs.

The items comprising this group, which constitute the fourth section of the income statement, and which appear below in tabular form, will, in closing the books, be closed out to the group account administrative expense:

Salaries of officers	$10,000.00
Salaries of clerks	5,000.00
Directors' fees	200.00
Printing and stationery	400.00
Postage	300.00
Telephone and telegraph	200.00
Traveling of officers and clerks	500.00
Legal expenses	2,000.00
Miscellaneous office expenses	250.00
General expenses	150.00
Total administrative expense	$19,000.00

CHAPTER XXIX

THE SECONDARY-INCOME GROUP

In the same manner that deducting cost of sales—from income from sales—produced gross profit on sales, so the deduction of cost of sales, plus selling and administration expenses, from income from sales produces net profit on sales. This profit, in the case of a manufacturing and selling organization, is known as the income from operations. It corresponds to the income derived in a railroad company through deducting operating expenses from operating revenues.

In the modern conception of organization and its attendant operations capital is the medium through which the business is transacted. Just as money is the medium for exchange of values, so capital is the medium for the transaction of business. Theoretically, the capital of an organization should be just sufficient, and no more, for its needs. Not one bit of this capital, in any form whatsoever, should get into the hands of outsiders. The ideal situation would be exactly the same as if the organization were conducting a strictly cash business; that it were engaged in only one line of business, having no transactions foreign to this line, and occupying its own plant entirely. In such an ideal organization there would be no income other than that from operations. That the ideal does not exist is shown by the fact that at times capital of the organization which is not required for its own business is invested in stocks and bonds of other companies; that it is sometimes permitted to get into the hands of outsiders, through extensions of credit, thus giving rise to accounts and notes receivable; that a portion of it is always deposited in the bank. It also happens frequently when goods are purchased, for example, at sixty days, that there is a discount offered by the vendor for the payment of cash in less than sixty days. Thus, theoretically, a part of the capital is loaned to the vendor.

The above transactions give rise to income from sources other than sales (or primary income.) This income is called secondary income, because of the fact that the concern in question is not in the business of loaning capital, but rather in the business of

manufacturing and selling goods. The principal object of the business is the manufacture and sale of goods. Therefore, the primary income of the organization must be from the same source. Incident to the manufacture and sale of goods there are these transactions of capital, and from them income is derived. While it is income, it is secondary to the principal object from which income is sought. Such income exists in the form of interest on bonds, dividends on stock, interest on bonds and mortgages receivable, interest on accounts receivable, interest on notes receivable, interest on bank balances and cash discounts on purchases. There is also included in this group royalties receivable, commissions receivable, considerations for endorsing notes, accumulation of discount on bonds, and rent. With regard to the last-mentioned item, it should be borne in mind that the rent is not that received through sub-letting a portion of premises for which rent is paid. It represents, rather, rent received from property not used in the operation of the business. Royalties and commissions are included in this group not because they are outside operations, but operations which are not related to the primary purpose of the organization.

The point to be kept in mind with regard to the interest items is that they should be accrued at the end of the accounting period. As a matter of convenience, and in order to distinguish between an asset and a liability, many accountants have adopted a technical terminology which indicates the distinction. This scheme contemplates referring to the asset as accrued interest, while the liability is called interest accrued. There would be no particular reason for calling the asset accrued interest, rather than interest accrued, if every one were to use the same terms in describing the asset; but where some use the term interest accrued for the asset and interest accrued for the liability, in connection with interest expense, it is most confusing. It is, therefore, an attempt to prescribe a working nomenclature, comprehensive, and understood by every one, that has led accountants to use certain expressions, such as the one above described, to mean certain things.

Dividends on stocks owned may not be accrued at the end of the accounting period. A dividend, unlike interest, is instantaneous. It comes into being with the declaration of directors. At the end of a given period the net profits may be ample to allow

a return of fifty per cent. on the investment. Stockholders in the corporation are, however, just as far away from a return on their investment as if they held no stock. They have no right whatever to consider that their investment has earned a return. The situation is quite changed, however, when the directors declare a dividend. The declaration of a dividend by the directors gives to the stockholders a right against the company which they may enforce. The enforceable right thus gives rise to income. When a dividend on stock has been declared the holder of the stock is entirely justified in taking the dividend into his income, even though not yet collected. If the dividend has not been declared there is no warrant whatsoever for so doing. Thus it may be said, interest may be accrued always, but dividends never.

It is possible that some question may arise with regard to cash discounts on purchases. Not every one treats cash discounts on purchases as other income. By many accountants they are treated as deductions from gross purchases, the same as trade discounts. By some accountants, cognizance is taken of cash discounts on purchases applying to invoices which will be paid during the first few days of the next succeeding period. In other words, if it is the practice of the purchaser to pay cash within ten days for all goods purchased, the accountant will, at the end of a given period, and supposing that there are invoices to the extent of $30,000, subject to discount at 2 per cent., charge accounts payable and credit cash discounts on purchases in the amount of $600. This procedure is entirely correct from the point of view which this accountant takes. It is not correct from the point of view of the accountant who follows what may be called the more advanced lines of thought, namely: those which consider capital as the medium for the transaction of business, and recognize the income and the expense attending such capital. If discount is considered in the light of interest, then it will be seen that the payment of a purchase invoice before it is due gives rise to interest for the use of money advanced to the vendor before he was entitled to receive it. It is, therefore, apparent that the question of interest may not arise until such time as the payment has been made. It is not necessary, as a consequence of this theory, to provide at the time of closing

the book for discounts on invoices which will be paid in the early part of the next period.

Another item which sometimes appears in this group is consideration for endorsing notes. This is, perhaps, a theoretical item rather than otherwise. The author has not in his experience encountered an example of this kind, although such instances are said to have existed. The income represents, practically, a fee received for the guaranteeing of the notes of others. It is, perhaps, questionable, where an item of this kind occurs so infrequently, whether it ought not rather to be a credit to profit and loss than a credit to income. Income is intended to represent something which recurs; profit-and-loss credits comprise unusual and infrequent items.

Another item in this group to which very little attention is paid is the income corresponding to the accumulation of a bond purchased below par. According to the most modern and scientific theory, a bond the interest on which is 6 per cent. purchased below par will yield more than 6 per cent. on the investment. This is due to the fact that the maker of the bond will pay not only 6 per cent. on the par principal during the life of the bond, but will pay the par principal at maturity. For example, a $1,000 bond, purchased at 95, would cost $950. The bond, at maturity, would be redeemed at $1,000. The investor, whose investment consists of $950, will receive 6 per cent. on the par of the bond, but more than 6 per cent. on his investment of $950. It is true, of course, that each year he will receive in cash $60. At the maturity of the bond he will receive not only his investment of $950, but, in addition, $50 more, representing the difference between his investment and par. This amount, while received in a lump sum, has, in reality, been earned over the period during which he has held the bond, and it is quite unfair to allow the profits of the year in which the bond matures to benefit by the entire amount. What should have been done was to spread the $50 in question over the number of years which the investor held the bond. It is, therefore, apparent that the return on his investment would have been greater than 6 per cent., possibly 6½. This is called the effective rate of interest, as compared with 6 per cent., the nominal in this case. The excess of yield over the nominal will depend upon several things, namely: the purchase price of the bond,

the nominal rate of interest, the interest periods, and the length of time which the bond has to run. What happens is that the interest earned on bonds will be credited not only with 6 per cent. which is received in cash but ½ per cent. which is being periodically added to the face of the investment. Supposing, for example, that on an investment of $950 in a certain bond the yield was 6½ per cent., the earning then for the year would be $61.75. At the time of closing the books the following entry would be made:

Accrued interest on bonds.............	$60.00	
Bonds	1.75	
To Interest on bonds................		$61.75

Upon receipt of the interest the following entry:

Cash	$60.00	
To Accrued interest on bonds.......		$60.00

It will be seen that the bond investment would now be carried on the books at $951.75. The value of this investment would increase from time to time in accordance with the amount of the excess income taken into the interest account, and would continue to increase periodically until at the time of maturity it would amount to $1,000. An entry would then be made converting the bond at $1,000 into cash. The process of increasing the value of the bond has sometimes been called amortization. It is not amortization, but the reverse of same. It is properly called accumulation, the accumulation consisting of the increase in the investment until, at the time of the maturity of the bond, it reaches par. The term amortization presumably came into use because it was considered that the discount representing the difference between the investment price and par was being amortized, or reduced.

This group corresponds to the fourth section of the statement of income and profit and loss, which appears as follows. The items representing the accounts involved are closed out into the group account income from other sources:

Interest on bonds owned....................	$400.00
Dividends on stocks owned.................	$250.00
Interest on bonds and mortgages (receivable)..	300.00
Cash discounts on purchases................	750.00
Interest on bank balances....................	50.00
Interest on accounts (receivable)...........	75.00
Interest on notes (receivable)...............	375.00
Rent (receivable)............................	145.00
Royalties (receivable).......................	300.00
Commissions (receivable)....................	250.00
Accumulation on bonds.......................	5.00
Total income from other sources..........	**$2,900.00**

CHAPTER XXX

DEDUCTIONS FROM INCOME GROUP

In discussing the items under this group it is again necessary to consider capital as the medium whereby the business of the organization is transacted. In theory, the group contains only items which are in the nature of expenses of capital. Capital expenses should be distinguished from capital expenditures. It should be thoroughly understood that what is not meant is an expenditure of the funds of the organization, which is capitalized, or set up as an asset. It distinguishes the expenses in connection with capital from the expenses in connection with operations. While capital is necessarily involved, and is employed in the operations, the expenses of obtaining, using or protecting capital are set up separately, in order to show what the income from operations would be if there were no expenses in connection with capital.

Aside from being based on sound, economic principles, this theory requires a classification which greatly facilitates the comparison of different organizations. Only like quantities may be compared. In the same way, only like organizations may be compared. It is in the matter of items comprising this group in which there is greatest conflict when comparison is attempted.

The principal items in the group are interest on bonds and mortgages payable, interest on accounts payable, interest on notes and loans payable, cash discounts on sales, rent (payable), insurance expense, taxes, interest on capital and royalties (payable). Of these, the interest items are probably easiest to comprehend, as coinciding with the theory advanced. Interest on bonds and mortgages, accounts or notes is paid because of the fact that the organization has not sufficient capital of its own with which to transact business. If the owned capital were sufficiently large there would be no occasion for borrowing on any of the instruments just mentioned. It is because of the fact that interest is an expense of obtaining capital that it is classified in this group.

Cash discount is not so easily reconciled, because of the custom which is, at the present time, perhaps, rather general, of

considering cash discount as a deduction from sales, the same as trade discount. In order to get the proper conception of the theory, as applied to cash discount, it is necessary to consider it practically the same as interest. A merchant who buys an invoice of goods makes a contract. The contract of purchase and sale arises when certain specific goods ready for delivery have been offered and accepted. Under the terms of the contract, delivery may be made immediately; but the purchaser, if the question of cash discount is to enter into the question, will probably be permitted thirty, sixty, or possibly ninety days, to make settlement. If this question of credit were not involved cash discount would not enter into the problem. It is because of the fact that a contract has been made, and the payment of the purchase price stipulated at thirty days, or longer, that the vendor offers a cash discount as an incentive to the purchaser to make an earlier settlement. In other words, the vendor offers to pay interest for the use of the money if he may obtain it before it is due under the terms of the contract. The vendor is, therefore, in the position of having borrowed money from the purchaser, for which he virtually pays interest. Thus it becomes perfectly logical to include cash discount on sales as a deduction from income, on the theory that it is an expense of obtaining capital. It need scarcely be pointed out that as a matter of financial policy the offering of a cash discount is good finance. To the concern engaged in a business in which the profits are large the money is worth very much more than the small amount of cash discount paid for its use.

There are two very good reasons for treating rent as a deduction from income. The first one is that rent is considered by the economist not an expense of the business but a share of the profits, which the tenant turns over to the landlord for the use of the premises. The second is that a concern paying rent does so either because of the fact that it does not own its own property, on account of lack of capital, or because it is inexpedient to do so. In either case, rent seems to be analogous with interest, since it is paid for the use of capital in the form of property. As an expense, therefore, of capital it is properly treated as a deduction from income. The question is often raised as to the propriety of treating the rent of the general office of an organization as deduction from income. The question is

often asked, "Would you consider the rent of an office in New York City in this class?" The question is probably prompted by men who have in mind the thought that a great number of industrial and mercantile organizations throughout the country maintain general offices in New York City. It seems strange to them that such concerns should arbitrarily be placed in the position of borrowing capital. The tendency is to consider rent paid for such offices as an administrative expense. The disposition is to connect the expense specifically with the department of the organization for which the expense was incurred rather than as an expense of capital.

Illogical as it may seem to many, there is no exception, so far as the author is aware, to the treatment of rent as a deduction from income, under the theory that the concern is occupying borrowed property or capital. True, a large industrial organization may not rent an office in New York City because of the fact that it has not sufficient capital to own its own building. The point is that it does not find it expedient to invest the large sum of money necessary to purchase or construct a building of its own where it requires general offices. It is cheaper to rent than to own. This view does not alter the fact that when it does rent it occupies the property of another rather than tie up its own capital in the investment, and, therefore, does pay a rent which is analogous to interest for the use of capital.

Insurance is a premium paid for the protection of property. It is a risk assumed by the company in behalf of the assured against through loss by fire, theft, accident, or loss from acts of nature. It is money paid for the protection of capital. It is, therefore, an expense of capital, and as such is properly considered as a deduction from income. Here again many find it difficult to disassociate insurance from the particular property which is insured. Perhaps the average student of the subject will insist that insurance on materials and supplies in stores is not properly treated otherwise than as an expense of the operating department. The question often asked is, "How can you consider insurance paid for the protection of your factory property as an expense of capital?" The answer is that capital is invested in the factory property, and just as interest paid for the use of money so employed is considered as an expense of capital, so insurance paid for the protection of this capital is a similar expense of

capital. More than one student seeking the light, or perhaps attempting to find a flaw in the reasoning advanced in accordance with this theory, has asked the question, "Why not charge the wages of the watchman at the factory to insurance, or treat it as a deduction from income?" A specific answer to the question might consist in saying that no money is invested in the watchman, and therefore there is no expense which can be traced directly to capital. This line of reasoning, though somewhat simple, will, it is believed, always produce the correct result.

Taxes are included in this group for the reason that they are likewise paid for the protection of capital. The State undertakes to exercise the police power. It protects the property of the citizen as well as the property of the business man. For this protection it exacts a tax. The business organization with capital invested is, therefore, protected. The taxes are an expense of such protection. The questions raised in connection with considering taxes as deduction from income are generally irrespective of organization taxes and the tax on net income. It is possible, without a great deal of difficult reasoning, to place these items in the same class. These taxes apply only to corporations. Obviously, a corporation may not own capital until it has been organized. If the tax is paid for organization it gives to the corporation the right to own capital. The fee for this right is in connection with capital, and, therefore, becomes an expense of capital. The federal corporation tax law imposes on corporations, joint stock companies, or associations organized for operation and having a capital stock represented by shares, a special excise tax with respect to the carrying on of or doing business. It further provides for a tax on the net income and the profits in excess of certain fixed rates. Here again it will be seen that the theory is logical, since, in the first place, the tax is imposed by the government for the privilege of doing business, in which privilege the corporation is protected; and in the second place, the net income is shared with the government for such privilege. It cannot be argued, it seems, that this tax is a part of the cost of the goods sold, the expense of selling them, or the expense of administering the business, but rather a specific deduction from the income. The difficulty involved in making this point clear has more than once arisen when the question has been asked, Shall such taxes be considered before

the net income is arrived at? Clearly this is not possible under the law, any more than it is a pertinent question. In making up its return to the government the corporation will determine its net income. The government will then compute the tax. This report, however, is something quite different from the company's statement of income and profit and loss.

On account of the importance of interest, insurance and taxes, apart from the rôle which they play in disclosing true economic or operating results, they will be made the subject, as in the case of depreciation, of separate chapters which follow.

In preparing the statement of income and profit and loss the items in this group, as appearing below, will constitute the sixth section, and in closing the books will be closed into the group account—deductions from income:

Interest on bond and mortgage payable......	$2,000.00
Interest on accounts payable.................	200.00
Interest on notes and loans payable...........	500.00
Cash discount on sales......................	300.00
Rent (payable)..............................	400.00
Insurance	100.00
Taxes	200.00
Royalties (payable).........................	300.00
Total deductions from income............	$4,000.00

CHAPTER XXXI

DEPRECIATION

Depreciation may be defined as the decrease in the value of an asset, due to deterioration through lapse of time, wear and tear, or obsolescence. It is, under all circumstances, an estimate. It has been very strikingly remarked that man and nature are constantly at work seeking to destroy all physical property. All physical assets are constantly undergoing deterioration as time passes. With some assets it is more marked than with others. It is rather difficult to recognize deterioration in the case of a desk. It is easier to recognize it in the case of an iron pipe which is exposed to the weather. It is, nevertheless, true that, although unobserved, deterioration is constantly taking place. On the other hand, man, through the use of physical assets causing what is known as wear and tear, is constantly decreasing the value of said physical assets. In a similar way he seeks, through invention, to find newer and better machines and articles of equipment for the manufacture of goods and transaction of business. The business man naturally turns to that which is newest and best, laying aside, perhaps, that which has served him faithfully, because of the saving either in money or energy through the use of the new invention. It is said of Mr. Andrew Carnegie that he owes his success in a very large measure to his ability to recognize new machines and his courage in casting aside machines which had thus become obsolete. The dictionary defines obsolete very simply and specifically as something which has "gone out of use."

The recognition of the existence of depreciation may be regarded as a somewhat recent one. Until a comparatively short time ago accounting practice did not take into consideration the element of depreciation. That it is an important element, and cannot escape recognition, is borne out by the many litigations that have arisen in the last quarter of a century. In the case of Conville v. Shook, et al. (24 N. Y. Supp. 547, 1893), the action was to recover the sum of $6,779.40 by the plaintiff from the defendant for the former's share of the profits of the business for a given year. The defendant claimed that the plaintiff's share of

the profits during the year in question was greatly less than the sum claimed by said plaintiff. Testimony was introduced by an accountant to the effect that numerous items were improperly entered on the books, the sixth one of which was depreciation of the original plant. It appears to have been the practice to provide for depreciation at the rate of 10 per cent. per annum. In that way assets originally costing $45,000 had been reduced at the time of accounting to $29,309.45. It was held by the court that there was no reason why the original plant should have been carried on the books for ten years at the original cost. The charge for depreciation was sustained.

In the case of Emery v. Wilson (79 N. Y. 78), Emery, Wilson and a third party were copartners, sharing in the profits one-tenth, four-tenths and five-tenths, respectively. Upon the death of one of the partners, namely, the third party mentioned, an action was brought for the accounting and settlement of the copartnership affairs. A question as to whether it was proper to allow for depreciation in the value of the property in ascertaining the profits arose. The referee apparently refused to permit an allowance for depreciation, and was sustained by the court.

In the case of Tutt v. Sand (56 Ga. 339), it appears that Tutt and Sand entered into a copartnership whereby Sand, the defendant, was to furnish the stock of goods then on hand, and the plaintiff, Tutt, was to render his skill, services, etc. The former was to have three-fourths of the profits, the latter one-fourth. The partnership was dissolved, and the plaintiff brought an action for $10,000 as his share of the profits which had been made. The defendant sought to set off against this amount various claims and expenses, among which was an item of $4,098.11, covering a depreciation of 10 per cent. on merchandise. In this case it appears that the item of depreciation was not allowed to stand as an individual matter between the partners, or, in other words, as a set off, but was properly included as an expense of the business, and borne jointly by the two partners.

In the case of the San Diego Water Company v. City of San Diego, the plaintiff was a corporation engaged in the business of supplying water to the city of San Diego and its inhabitants. The Common Council of the city passed an ordinance fixing the water rate for the year. The plaintiff sought to annul

the ordinance on various grounds, one being that the rate so fixed would be insufficient to pay its operating expenses and fixed charges, and, therefore, afford no reward to the plaintiff for furnishing water, which would be depriving the plaintiff of its property without due process of law and without compensation. The water company appears to have sought to include as an item, in making up the cost on which the rate was based, a sinking fund provision for depreciation. The court held that no percentage upon the investment could properly be charged as a sinking fund, to be added to the operating expenses, as a general provision against depreciation of the plant through use.

In a similar case, namely, the Redlands Water Company v. the City of Redlands (121 Cal. 312), the city likewise adopted an ordinance fixing the rate. The water company brought an action to annul the ordinance on the ground that the rate would be insufficient to enable it to pay the interest on its indebtedness, its operation expenses and taxes, and for keeping its plant in repair. It was held by the court that the water company was not entitled to have the rate so fixed as to enable it to set apart a certain amount each year as a sinking fund for the depreciation of its plant.

In the case of Whittaker v. Amwell National Bank (52 N. J. Eq. 400, 1894), one of the questions at issue was whether or not dividends declared and paid by the Star Rubber Company, one of the defendants in this suit, were paid out of the surplus or net earnings of the company. It was held, among other things, that this could only obtain by taking into account the cost of repairs and a reasonable allowance for depreciation for wear and tear. The court said: "It cannot be successfully contended that all such machinery is not subject to depreciation from wear and tear or actual use. That all machinery does not suffer alike is equally plain. The testimony in this case leads me to the conclusion that the depreciation was at least 2 per cent. a year."

In one of the most recent cases, namely, Cumberland Telephone and Telegraph Co. v. City of Louisville (187 Fed. Rep. 637, decided April 25, 1911), the question of depreciation arose in a suit brought by the telephone company to enjoin the enforcement of an ordinance as confiscatory and unconstitutional. In this case the court took cognizance of depreciation, and said: "We define depreciation to be the loss in value of some destruct-

ible property over and above current repairs." There was involved in this suit the question of what proportion of the company's annual earnings shall be set aside for making good the depreciation and replacing the parts of the property when they come to the end of their life. This question was one altogether apart from and beyond current repairs. On this question the court ruled as follows: "A reasonable amount to be set apart in this climate for making good depreciation is 7 per cent. of the value of the fixed plant, exclusive of real estate, working capital and supplies in hand. The testimony clearly leads to the conclusion that the average life of the combined elements which make up the plant is about fourteen years, and we shall proceed upon that theory. In estimating depreciation, we will reckon it at 7 per cent. of $1,575,000, the value of the destructible parts of the plant. Of course, our estimate cannot be based upon the proposition that the per centum set apart to cover depreciation would be deposited in banks or loaned out from year to year, so as to accumulate, and be, at the end of fourteen years, used to construct an entirely new plant. In such a case the public would not only have a service that would grow worse when its operation ceased altogether, but it would thereafter get no service at all until a new plant, replacing the old, could be completed and put into operation."

It will be seen from the last-mentioned case that it is one of the latest and most modern rulings on the subject. It will also be noted, in glancing over previous cases, that while there have been some decisions which refused to recognize the element of depreciation the tendency at the present time is toward a general recognition. The Interstate Commerce Commission and the various Public Service Commissions have done much to establish this recognition.

Regardless of legal decisions, it must be borne in mind that depreciation is a very important item, since no matter what the type of organization may be, or what the nature of the business, the net profits will be affected in accordance with whether or not depreciation is allowed to enter into the accounts. It seems that it must be considered as conclusive that physical property does depreciate in value, and that if such depreciation takes place it is a proper charge against the expense of the period. If this is true, and depreciation has not been included as an item of expense,

then the net profits are incorrectly stated. Hence the importance in all contracts of copartnership, and similar contracts, of recognizing and providing for depreciation in the stating of the accounts. To illustrate this point concretely, suppose that a certain firm should acquire a parcel of land, including a building, at a cost of $25,000. Assume, if you like, the copartnership to continue for thirty years. At the time of dissolution assume that in the distribution of the assets A elects to take the property at its cost, namely, $25,000. Assume further that the property is so situated that there has been no perceptible appreciation in the value of the land, and that the former partner, A, now attempts to dispose of the property, and is suddenly confronted with the fact that it will not bring more than $10,000. The injustice and inequality of having failed to provide for the depreciation of this property before the copartnership accounts were stated, and the affairs settled, will be very evident.

Admitting the necessity for depreciation, it must then be observed that it will vary in different localities with regard to the nature of the assets, the use to which they are put, and the kind of use which they receive. It will be recalled in the case of Whittaker v. Amwell National Bank the court was led to conclude that depreciation was at least 2 per cent. a year, while in the case of Cumberland Telephone and Telegraph Company v. City of Louisville depreciation was allowed at the rate of 7 per cent. a year. The question may be asked, Why this wide variation in rates? While the cases do not show specifically the kind of property involved, it is probable that, making due allowance for failure of the courts to employ a scientific rate established by experience, there was some marked difference in the nature of the asset or the use to which it was put. Obviously, the rate of depreciation upon a dwelling which receives careful use at the hands of its occupants will not be as high as that for a taxicab which is being constantly driven about the streets, over rough pavements, at a high speed. As a matter of further illusration, a case of boilers may be mentioned. In the southwestern part of the United States especially, where the water contains a great amount of alkali, the boilers will scale and need replacement at least five times as often as in the northeastern New England States, where the water has little effect upon boilers. To charge the same rate of depreciation in both places would

be entirely incorrect. In the same way, buildings containing heavy machinery, and which are subject to constant and marked vibration, will depreciate much faster than buildings wherein no such machinery is found.

Experience only will determine the proper rate of depreciation to be used in each particular case. Appraisal companies have probably the best detailed information on this subject in the country. Since this information constitutes in part their stock in trade they are loath to make it public. That the variations in rates are great will be seen in consulting tables such as those compiled by Mr. George A. Cravens (published in *The Electrical Review,* April 23, 1910, and reproduced in Montgomery's "Auditing," page 325), in which depreciation of boilers is seen to fluctuate from 3½ to 10 per cent. per annum. Mr. H. S. Tiffany, in his book called "Digest of Depreciations," which is probably one of the most complete tables extant, places the average life of a boiler at ten years, and therefore computes the depreciation at 10 per cent. Mr. Tiffany's note bearing on the use of the property, as follows, is interesting: "In giving the percentages of depreciation on engines and boilers it is assumed that a careful and competent engineer is employed, and that they are well cared for. Where this is not the case the per cent. is largely increased, and many cases have been known where in less than five years they have been, through carelessness, rendered entirely useless, and consequently worthless."

While attention is usually given, in so far as depreciation is concerned, to buildings, equipment, etc., very little attention is ever given to the depreciation of land. It is usually assumed that land does not depreciate. This is probably true with regard to all land except that used for agricultural purposes. Mr. R. H. Montgomery, in his book on "Auditing," calls attention to the fact that "land used for agricultural purposes may depreciate through use, and does depreciate unless a certain rotation of crops is followed, or unless fertilizers are used. The latter is equivalent to the cost of maintenance and repairs in a factory. The price of flaxseed has increased enormously because during the early years of farming in the West the vitality of the land was exhausted by raising a crop which impoverished the soil to such an extent that farmers were obliged to discontinue the raising of flaxseed. During this period, when this crop was using up

the value of the land, the farmers should have set up a reserve for depreciation, and it would have been apparent that the net price realized from the flax crop was not nearly so high as it seemed, but that wheat, while bringing in less per acre, would have been more profitable. Heretofore, text-books on auditing have stated, without qualification, that land does not depreciate. If it is a fact that three-fourths of the land in the United States is depreciating through use, these statements should not have been allowed to go unchallenged so long."

Another important matter to be kept in mind in connection with depreciation is its relation to repairs. Most authors agree that depreciation is something quite apart from repairs and maintenance. It is true that if an asset is repaired and maintained it will last longer than if such is not the case. It should be borne in mind that in estimating the life of a given asset allowance must be made for a reasonable amount of maintenance and repairs. If repairs are neglected the life of the asset will be shortened. If the asset is thoroughly maintained its life may be lengthened. The point which the author is especially anxious to bring out is the fact that rates heretofore and hereafter mentioned exclude any provision for repairs and maintenance; that the depreciation takes place quite apart from the charge to expenses which is made for repairs and maintenance.

Before proceeding to a discussion of the various methods of computing depreciation some attention should be given to the bases on which it is computed, namely, the cost of the asset, its estimated life, and the residual value. Most assets, whatever their life may be, will ultimately have a scrap or residual value. This is, of course, at best an estimate, the same as the life of the asset is an estimate. The existence of the residual value should be recognized and an attempt made to fix it as well as possible. If the residual value is recognized, it is apparent that before the amount which is to be charged off or depreciated can be ascertained the residual value must be deducted from the original cost. The result then is the amount which is to be spread over the estimated life of the asset.

With regard to the methods employed in computing the annual rate at which depreciation may be charged to the operating expenses there are two which are worthy of special mention, as being entirely practicable, whereas several others may be discussed

merely as a matter of interest. Most authors, writers and authorities recognize three different methods, namely: (1) the fixed percentage of the original value, or the flat rate, as it is frequently called; (2) the fixed percentage on balances, or the reducing scale basis; (3) the sinking fund. Some authors mention an increasing scale, while others suggest not a percentage at all, but depreciation determined by revaluation at inventory periods. It is also true that mining companies base their depreciation, or, in reality, depletion, on tonnage, charging off five or ten cents, or whatever it may be, per ton, in accordance with the number of tons extracted. This same basis might also be used in the case of a foundry furnace, the lining for which is constantly being exhausted, and is wearing out in direct proportion to the number of tons of molten metal which pass through it. Of the various methods mentioned, the fixed percentage is probably the most practicable and easiest of application. It contemplates dividing the original cost, less the residual value, by the estimated number of years of life and charging off a corresponding percentage each year. In this way the depreciation is spread equally over the life of the asset. The reducing-scale method is advocated by adherents who claim that repairs and maintenance are heaviest during the latter part of the life. They contend, therefore, that in order to secure an equitable charge against the profits of the respective periods a larger amount, steadily decreasing, should be charged against the earlier years of the life, whereas a smaller amount should be charged during the later years, when the maintenance is steadily increasing. It must be conceded that there is considerable merit in this contention, and it is, perhaps, not any more difficult, after the first mathematical calculation has been made, than the first method suggested. The practical objection to it is that the ordinary layman is not sufficiently familiar with algebraic formulæ to determine the percentage. The fixed percentage on original cost is the layman's way of computing depreciation.

With regard to the sinking-fund method, it is probable that this is the most scientific. It does not necessarily follow that because the sinking-fund method of ascertaining the amount is used a sinking fund must actually be set aside in so many dollars and cents, or equivalent assets. It is based, of course, primarily on the theory which the sinking-fund calculation raises, namely:

the sum which must be set aside annually, at compound interest, in order to equal at maturity the desired amount. Such would be the case with regard to depreciation if it were desired to replace physically the asset depreciated. It is not necessary, however, that this be done. The question to be determined is what amount shall be annually charged to operating expenses. The answer to the question is, therefore, such an amount as would annually, at compound interest, amount to the value of the asset to be written off. The marked objection to the sinking-fund method is that each time there is an addition to or deduction from the original cost of the asset the sinking-fund calculation is destroyed, and it becomes necessary to revise it. The following tables, charts and calculations show the relative advantages and disadvantages of the three methods above described, as well as others mentioned:

COST, $1,000. ESTIMATED LIFE, FIVE YEARS. ESTIMATED RESIDUAL VALUE, $100

Years	Amount Chargeable to Operations Annually						Value of Asset at End of Each Year					
	Fixed percentage	Fractional method, weighted years	Declining balance, unscientific 20%	Declining balance, scientific 36.905%	Sinking fund method	Revaluation	Fixed per centage	Fractional method, weighted years	Declining balance, unscientific	Declining balance, scientific	Sinking fund method	Revaluation—arbitrary
1 year.....	$180.00	$300.00	$180.00	$369.05	$162.87	$250.00	$820.00	$700.00	$820.00	$630.95	$837.13	$750.00
2 years....	180.00	240.00	144.00	232.85	162.87	225.00	540.00	460.00	676.00	398.10	666.12	525.00
3 years....	180.00	180.00	115.20	146.90	162.87	125.00	360.00	280.00	560.80	251.20	486.56	400.00
4 years....	180.00	120.00	92.16	92.70	162.87	175.00	180.00	160.00	468.64	158.50	298.02	225.00
5 years....	180.00	60.00	368.64	58.50	162.87	125.00	100.00	100.00	100.00	100.00	100.00	100.00
Depreciat'n.	900.00	900.00	900.00	900.00	814.35	900.00						
Interest, 5%					85.65							
Residue....	100.00	100.00	100.00	100.00	100.00	100.00						
Total....	$1,000.00	$1,000.00	$1,000.00	$1,000.00	$1,000.00	$1,000.00						

In connection with the methods just previously mentioned it will be noted that any addition to or reduction from the original asset will disturb the calculation seriously, except in the case of the flat rate. Addition to a given asset will have no effect upon the rate if the addition is of the same life as the original asset. Naturally, a deduction from the original asset will have no effect upon the rate. It will thus be seen that the life plays a very important part in the calculation of depreciation. If all property were of the same life, additions and deductions would have no effect upon the rate. The amount would, of course, change. For example: A given asset, costing $600, without residual value, might have an estimated life of ten years. In consequence, $60 would be the amount of the annual depreciation. If at the end of the second year a portion of the asset, corresponding to one-third, for example, were to be sold, the asset would be reduced to the extent of $200, and while the amount of the annual depreciation would be decreased to $40 the rate would not change. It would still be 10 per cent. on the remainder of $400. The converse of this proposition might be illustrated by a case wherein the original cost of the asset is $600, with the annual depreciation charge of $60. Again, if at the end of the second year additions to the extent of $75 are applied, the annual charge will be $67.50 instead of $60, corresponding to 10 per cent. of the cost of the asset, namely, $675. Attention should be drawn to the fact that in neither of these cases will it make any difference whether the addition or deduction takes place at the end of the second or some subsequent year. The vital point is that the additions and deductions must correspond in life to the original asset. For this reason it becomes almost impossible to compute depreciation from the asset accounts in the general ledger. Where attention is given to depreciation, and an attempt is made to compute it systematically, the details of the general ledger property accounts will, almost invariably, be found in underlying ledgers or memorandum books. Unless the assets are classified with regard to their respective estimated lives, when the calculation consists merely in taking the total cost less the estimated residual value in each class, and applying the rate determined by the estimated life, there will at once arise the question as to when the life begins and whether or not the beginning should correspond accurately with the date of acqui-

sition of the asset. For example: In the case of a piece of machinery, purchased on the twentieth of November, in a given year. Shall the life begin on the twentieth of November, or shall it, for purposes of convenience in the calculation of depreciation, be considered as of the first of the following January? To repeat the question in general terms, shall additions to property during a given year be taken up, for purposes of depreciation, from the actual dates of acquisition or from the end of the year in which they were acquired? Generally speaking, it is proper to wait until the end of the year before putting additions to property on a depreciation basis. While this will probably be found to be the general practice, there will undoubtedly be exceptions to the rule in special cases where certain assets depreciate rapidly. In the case of concerns closing their books oftener than once a year it is usually customary to begin the depreciation as at the end of the period in which the property, or additions thereto, were acquired.

As to the manner of treating depreciation in accounts, there are two ways. One is to write down the asset to profit and loss; the other is to make provision for depreciation through a charge to profit and loss and the creation of a reserve. In the first case, granting that a certain machine cost $10,000, that the estimated residual value is $500, and the estimated life ten years, the journal entry at the end of the first year would be as follows:

Profit and loss or (depreciation)	$950.00	
To Machinery		$950.00

In the second case, where the asset is not written down, but its value depreciated or offset by a reserve, the journal entry would be as follows:

Profit and loss or (provision for depreciation)	$950.00	
To Reserve for depreciation		$950.00

The second method seems to have distinct advantages over the first method, in that it permits the asset to stand at its original cost, plus additions or deductions, while its value is offset by a reserve, whereas in the first case the balance in the account results from a series of transactions representing original cost, additions, deductions and amounts written off. It is, therefore,

difficult to determine, except through analysis, whether the credits in the account are for sales, losses, or damage to the assets, or amounts written off for depreciation. This would, perhaps, make little difference if all the details of an asset account were carried forward from year to year, but where new books are opened yearly the original cost of the asset is soon lost track of. This point might be an important matter in the case of a prospective sale, and while, of course, the original cost could be determined by an analysis of the old accounts, it would seem to be very much easier, and more satisfactory, to carry the asset forward from year to year at its original cost, plus actual additions and minus actual deductions, so that the cost would always appear in the current books; whereas the book value, being the difference between the cost and the reserve, could also be easily determined.

It also happens, in certain cases, that a concern will desire to put aside a fund out of which to replace the assets at the end of their respective lives. Where a provision for depreciation has been made through the medium of a reserve this is known as funding the reserve. The idea back of this scheme is that a fund will be accumulated from time to time which will be sufficient, at the expiration of the life of the asset, to replace it. The fund may, of course, be accumulated without the creation of a reserve, but the effect at the expiration of the life of the asset is precisely the same. In the one case, namely, where the asset has been written off over a period of years to profit and loss, it will, presumably, have disappeared at the end of its estimated life. There will then stand in place of it the accumulated fund. In the other case the asset will remain; the reserve will have been created to an extent which equals the asset; the asset, at the end of its life, will be closed out to the reserve; and the fund will stand in place of the asset. The accumulation of a fund is, of course, conservative, and offers an opportunity for setting aside a small amount annually instead of being obliged to provide perhaps a large amount for replacement suddenly. The objection found to accumulating a fund is that almost any prosperous concern can make more money through the use of the cash in the business than a fund would return in the way of interest. It would, therefore, be found that in a prosperous concern, which might reasonably expect to have on hand sufficient funds for replacement at any given time, the accumulation

of a fund would be unnecessary. So long as the annual profits, are reduced by a provision for depreciation it would appear that the matter had been conservatively handled.

Many text-books discuss the creation of a reserve for depreciation, but very few have anything to say concerning its disposition. In the case above cited, where the cost of machinery was $10,000, the residual value estimated at $500, and the estimated life was ten years, it will be recalled that the annual charge for depreciation was $950. If depreciation were to be provided for through the medium of a reserve, at the expiration of the life of the machinery the reserve would show credits aggregating $9,500. The difference between the cost and the reserve would be $500. Two things might at this time happen, namely: the machinery continue in use, or be sold as second-hand or scrap. Although practically written off, its usefulness, while impaired, might warrant its continuance in use, and for all practical purposes it might apparently be worth as much to the concern as it ever was. The accounts might be allowed to stand as stated, giving to the asset a nominal value of $500. If its earning power were still as great as before, the value is obviously greater than $500. Such a case has sometimes been given as an example of a secret reserve. This would, of course, be true whether or not the accounts were allowed to stand or whether the reserve was closed out to the asset and the book value thereof shown as $500.

Assuming the latter steps to have taken place, and the machinery to have been sold, then one of two things may result. First, the asset may have been sold for more than $500; and second, for less than $500. Assuming the sale to have brought $800, the transaction, expressed in the form of journal entry, would then appear as follows:

Cash or (accounts receivable)........	$800.00	
To Machinery.........................		$500.00
Profit and loss..................		300.00

If, perchance, the asset realized only $400, the entry would be as follows:

Cash	$400.00	
Profit and loss.....................	100.00	
To Machinery....................		$500.00

In case the original asset has been allowed to stand and a reserve created, the closing entry, that is, the one required to bring the asset down to its residual value, would be as follows:

Reserve for depreciation of machinery..	$9,500.	
To Machinery		$9,500.

The balance in the account would then be $500. As such it might remain or be treated as suggested in the preceding entries recording the disposition.

It should be borne in mind in connection with depreciation, and as a parting thought, that it is, at best, an estimate; that it rarely works out as planned, and that taking it into consideration is only an attempt to (a) properly state the estimated value of an asset and (b) provide for proper charges to operations.

It might also be mentioned, of course, that incidentally information concerning depreciation may be of value in securing accurate cost data and determining the relative efficacy of different types of construction or equipment. The fact is not to be ignored, either, that the federal corporation tax law requires all corporations to include depreciation as an item of expense.

REFERENCES FOR COLLATERAL READING:

Modern Accounting, Hatfield, Chapter VII.

Accounting in Theory and Practice, Lisle, page 137.

Accounts, Their Construction and Interpretation, Cole, pages 247-257.

Science of Accounts, Bentley, pages 139-149.

Electric Light Accounts, Edwards, Chapter V.

Accounting, Practice and Procedure, Dickinson, pages 164-174, 221.

Depreciation and Wasting Assets, Leake.

Engineering Valuation of Public Utilities and Factories, Foster.

Factory Costs, Webner, Chapter XIV.

Journal of Accountancy, Vol. XVI, page 358.

Journal of Accountancy, Vol. XV, page 106.

Journal of Accountancy, Vol. XIV, page 431.

Journal of Accountancy, Vol. IX, pages 89, 189.

CHAPTER XXXII

INTEREST

The commonly accepted definition of interest is "Money paid for the use of money." The late Colonel Sprague, who perhaps gave more thought to the subject of interest than any other man who has written on the subject, took a somewhat different view. He defined interest in substance as "The increase in principal due to lapse of time." For the purposes of this discussion, however, it does not seem to be necessary to attempt the reconciliation of these somewhat divergent definitions, since there is probably no question in any student's mind as to what constitutes interest. The reason for interest is that some one has borrowed capital or funds, and for the use of these funds some one is obliged to pay interest. Without regard at present as to whether interest is to be regarded as an item of income or an item of expense, there are certain characteristics of interest which are common to both and which must be, for the purpose of discussion, first stated. These characteristics are, namely: principal, rate and time. The question of principal and rate require no particular discussion. The question of time is the one which vitally affects the computation of interest and, consequently, the bases or methods of calculation. Generally speaking, these methods, in so far as simple interest is concerned, are confined to three, namely: the 360-day basis, the 365-day basis and what is generally regarded as the legal method. The first-named consists in dividing the interest for a year by 360 and considering 1-360th as the amount applicable to each day. The second consists in dividing the interest for a year by 365 and considering 1-365th as the amount applicable to each day. The legal method, which is the construction generally placed upon the statutes now in force, consists in dividing the interest for a year by 12 and considering 1-12th as the amount applicable to each month. Odd days are treated as 365ths of a year.

The legal day begins and ends at midnight. Therefore, in computing interest for a given number of days the first day should be excluded and the last day included, or *vice versa*. Colonel Sprague advocated "counting the nights." In applying the

methods above described a concrete example may prove beneficial. Let the statement of facts be as follows: Principal, $1,000; rate, 6 per cent; period, February 21 to March 27. The year's interest will amount to $60. Using the 360-day basis, the interest per day will be $.166. The number of days elapsed between February 21 and March 24 will be 34. The amount of interest will, therefore, be $5.64. Using the 365-day basis, the interest per day will be $.164. The number of days elapsed between February 21 and March 27 will be 34. The amount of interest will, therefore, be $5.57. Using the legal method the time will be 1 month, 6 days. The interest for the 1 month will be 1-12th of $60, or $5. The interest for the 6 days will be 6-365ths of $60, or $.98, making the interest for the time elapsed between February 21 and March 27 $5.98. The 360-day basis is probably the most general basis used, since it is easiest. Banks and brokers generally use it. However, it is said of some banks and trust companies that they charge interest on the 360-day basis and pay interest on the 365-day basis. The 365-day basis is used generally by accountants whose desire it is to be as accurate as possible. The legal rate is used in computing interest on judgments and wherever interest is involved in judicial actions and decisions.

To take up now interest as affecting the accounts of a given organization we find that interest may be related to the accounts either as income or expense. As an item of income, it may appear as interest on bonds owned, interest on bonds and mortgages receivable, interest on bank balances, interest on accounts receivable, and interest on notes receivable. As an expense it may appear in connection with bond and mortgage payable, debentures, income bonds, accounts payable, notes payable, or loans payable. In isolated cases it may appear as interest on capital, especially in the case of copartnerships. It accrues over a period of time, and in accordance with such accrual must be taken into the accounts at closing dates whether or not it has been actually paid or collected. As an earning or item of income we have it charged to some asset account and taken into the income for the period. As an item of expense we have it charged against the expenses of the period and credited to a liability account. Subsequent receipt or payment of the interest in cash will not affect in any way the income or expense items. The cash received subsequent to the accrual appears in the light of a realization of the

asset, accrued interest. The payment of the cash for interest subsequent to the accrual of the interest appears in the light of a liquidation of the liability, interest accrued. It might be said here that for convenience many accountants have adopted a nomenclature which will distinguish between interest accrued as an asset and interest accrued as a liability. The distinction consists in using the word accrued before the word interest for the purpose of denoting an asset, whereas for the purpose of denoting a liability the word accrued follows the word interest.

To run through one or two sets of typical transactions for the purpose of illustrating the entries in connection with interest, we may take the following statement of facts:

Principal of a note received from customer.......	$1,000
Rate of interest............................	6 per cent.
Date of note................................	June 1
Period......................................	3 months
Basis (for convenience in illustration)...........	360-day
Closing date................................	June 30
Note paid..................................	September 1

The interest on the note will be $5 per month. In closing the books at June 30 the entry will be as follows:

Accrued interest..................	$5.00	
To Interest earned.............		$5.00

Upon the settlement of the note on September 1, the following entry will appear:

Cash	$1,015.00	
To Notes receivable..............		$1,000.00
Accrued interest.............		5.00
Interest earned..............		10.00

A variation of this procedure might, of course, take place if before making the final entry the interest transaction were com-

pleted, namely: by charging accrued interest and crediting interest earned with $10. The entry corresponding to the above would then appear as:

Cash	$1,015.00	
To Notes receivable..............		$1,000.00
Accrued interest..............		15.00

If the above statement of facts may be similarly used to illustrate the entries in the case of notes payable instead of notes receivable, the entry at June 30 would then appear:

Interest expense...................	$5.00	
To Interest accrued..............		$5.00

At the time of paying the note the entry would appear:

Notes payable.....................	$1,000.00	
Interest accrued...................	5.00	
Interest expense...................	10.00	
To Cash.........................		$1,015.00

The same variation as was above indicated in the case of notes receivable might occur here, namely: that the interest might be fully accrued at the time of payment before the entry for the cash transaction was made. The final entry under such circumstances would then be:

Notes payable.....................	$1,000.00	
Interest accrued...................	15.00	
To Cash.........................		$1,015.00

It would seem as though this were an appropriate place to discuss discount, on account of the close relation which it bears to interest, being considered, in fact, as interest paid before it is due. Discount is of two kinds: bank discount and true discount. Bank discount is simple interest collected in advance. True discount is compound interest collected in advance, or the difference between the amount of the principal and its present worth. The bank discount on $1,000 at 6 per cent. for one year would be $60. The true discount on the same amount for the same time and

rate would be $56.61. The bank discount is obtained by multiplying $1,000 by 6 per cent., whereas the true discount is ascertained by dividing 1 by 1.06, the result of which will give the present worth of a dollar at 6 per cent. compound interest for one year. The present worth of $1 multiplied by $1,000 will give $943.39. This sum subtracted from the principal of $1,000 shows the discount of $56.61.

Mr. H. C. Bentley, C.P.A., in his book on the "Science of Accounts" makes a distinction between interest and discount which is logical if somewhat novel. Mr. Bentley holds that bank discount should never be called discount. He is of the opinion rather that where collected in advance it should be called simply interest paid in advance.

Such a distinction would help considerably to clarify matters since discount would then mean but one thing. In the case of the three months' note previously referred to, the interest would be $15.00; the discount $14.78. The interest might be paid in advance or at maturity; discount would always be collected in advance. Under such circumstances it would be unnecessary to distinguish between bank discount and true discount. Why banks prefer the former is not difficult to see.

If we accept the suggestion that discount should mean but one thing, then the only question in so far as our accounting is concerned is the relation of this discount to the accounting periods. In treating with discount we must look at it from two points of view—one, that of the party who pays the discount; the other, the party who receives the discount. Taking up first the point of view of the party paying the discount, it then appears that interest has been paid for the use of money covering a period which has not yet elapsed. The interest, or discount, is, therefore, appropriately and properly to be considered as a payment in advance. Consequently, it should be treated as a deferred charge to expense. As the time elapses over which this prepayment extends the deferred charge to expense should be gradually reduced by charges to expense. In the case of the note on which the discount was $14.78, the original discounting of the note, stated in terms of journal entries, would be as follows:

Cash	$985.22	
Discount	14.78	
To Notes payable................		$1,000.00

The item of $14.78 will subsequently be charged to interest expense, or interest on notes payable, and credited to discount as the time elapses. At June 30, assuming that the note was discounted on June 1, $4.87 of this amount will be charged to the expense for the month, while the remaining $9.91 will appear in the balance sheet as a deferred charge.

The opposite of the above is true and applies especially to banks and banking institutions. If, in the first case, the man who stands the discount is entitled to defer the charge to his expenses in accordance with the extent to which the period covered has elapsed, then surely the recipient of the discount must not take into his earnings the entire amount. The bank or banker discounting notes should set up discount as a deferred credit to income under the head of discount unearned and take same into its earnings in accordance with the lapse of time. To use again the same illustration, the entry for the bank will be, upon discounting the note:

Notes receivable....................	$1,000.00	
To Discount unearned.............		$ 14.78
Cash		985.22

At the end of the month an entry should be made charging discount unearned and crediting discount earned with $4.87 of the discount. There would then appear in the discount earned for the period $4.87 and as a deferred credit to income on the balance sheet $9.91.

The question of setting up the unearned discount is not, as a rule, important in a mercantile concern for the reason that, like so many other items, the results of taking it into consideration are not worth the energy and trouble expended in so doing. In the case of a bank or banker, a large part of whose business consists in discounting paper, the situation would be quite different. It is of utmost importance in such cases that careful attention be given to the matter of unearned discount. Banks which close their books annually or semi-annually will tell you that the discount will average up between periods and that it is not necessary to observe the rule with regard to taking the earnings on discount into income. Thus it might easily happen in the case of a bank

closing its books monthly or quarterly that there would be a marked fluctuation in the income among the different quarters. The decrease in any given period would probably be attributed off-hand to a falling off of business. This might, of course, be true. On the other hand, it might also be true that the money value of the notes discounted had increased rather than decreased, but that the average term which the various notes had to run was so much shorter than the average term of notes discounted in the preceding period as to more than offset the increase in the discount resulting from the increase in the amount of the notes. If the discount were properly spread over the life of the notes a situation such as the above could not exist. An increase or decrease in the earnings from discount as among periods would then represent the true fluctuation in the volume of notes discounted.

While the matter of setting up the unearned discount is one of considerable trouble to banks which are particular about this point some of them have devised means of facilitating their work in this respect. Ordinarily it is probable that they would ascertain their unearned interest at the end of a given period in the same manner in which an accountant is obliged to ascertain such information when he goes in to make an audit or examination, namely: by listing the discounted notes and figuring on each note the unexpired discount collected in advance. This then would be charged to discount earned, or interest and discount, and credited to discount unearned, or interest received in advance. To avoid this laborious process some banks, as has just been suggested, keep what is known as a discount register. This book is somewhat similar to the ordinary notes payable or notes receivable books so common among mercantile concerns. In it the notes are listed and the particulars concerning them, including the amount of each and the discount on each. The discount is then spread over a series of columns corresponding to the months in accordance with the number of months the respective notes have to run. While this practice is comparatively rare, it would probably be still rarer to find a bank spreading its discount scientifically; that is, increasing gradually from month to month as the time elapsed. While admittedly not scientific, it is probably satisfactory to divide the discount by the number of months the note has to run and credit to each month its proportionate share.

It will be seen that by the use of this method all discount will be credited immediately to an unearned account, but will be credited to earnings monthly by an entry charging discount unearned and crediting discount earned in an amount corresponding to the footing in the discount register for any given month.

Another expedient for facilitating the accruing of interest may also be mentioned at this time. Organizations holding numerous securities on which interest accrues find the computing of the interest a source of considerable trouble. Here again the interest must be computed either at the end of the period on the particular securities or investments owned individually or through the means of a register in which the interest on each security for the month is set up. As a variation from both of these methods it sometimes becomes possible to classify the par principal according to the various rates of interest, namely: 4 per cent., 4¼ per cent., 5 per cent., etc., and accrue the interest on the total amount of principal in each class at any time. For example: Assuming that a given concern had $100,000 4 per cent. bonds, $50,000 4½ per cent. bonds, $200,000 5 per cent. bonds, another $200,000 of 4 per cent. bonds, another $50,000 4½ per cent. bonds, instead of accruing the interest of five separate items, the two lots of 4 per cent. bonds would be added and the accrued interest at 4 per cent. computed on the total. In the same way the 4½ per cent. bonds would be added and the interest accrued on the total. Then by accruing the interest on the 5 per cent. bonds there would be three calculations instead of five. If this illustration may now be applied to a large organization in which a great many different securities are held, the value of such a method will be apparent. In order to employ this method it is necessary to keep a register in which the securities are entered in accordance with the rate of interest which they bear. It is, of course, evident that broken periods, resulting from purchases or sales of securities, except at the end of the accrual periods, will upset the calculations unless the items in question are deducted from the totals and the interest accrued on these items separately.

In the matter of copartnerships interest of capital becomes an important factor. Ordinarily it seems that nothing is to be gained by charging the business with interest on capital and taking it in as an earning. This has too much the appearance of doing business with one's self. It would seem hardly necessary to add

that no money is ever made in this way. Some economists undertake to analyze the profit of a business organization and classify it with regard to the factors which produce it. In this way capital is shown to have earned interest. This would seem to be an unnecessary procedure and tend to confusion rather than otherwise. It is conceded that statistical information concerning the employment of capital and the return therefrom is at times of value to the administrative force. There would seem to be no reason, however, why the general books and accounts of the organization should be burdened with carrying and showing this information. It would seem rather to be a matter for independent calculation. In the case of a copartnership, however, where certain conditions exist, the situation becomes quite different. Here many times the amount which the respective partners are credited with will depend upon the matter of interest on capital. The following three rules may be given concerning when it is proper to charge and credit interest:

(1) When the capital is unequal and the profits are to be equally divided, charge interest on capital and credit the respective drawing accounts of the partners.

(2) When the capital is unequal and the profits are to be unequally divided, charge interest on capital and credit the respective drawing accounts of the partners.

(3) When the capital is equal and the profits are to be unequally divided, charge interest on capital and credit the respective drawing accounts of the partners.

Where the capital is equal and the profits are to be equally divided, nothing is gained by charging and crediting interest.

The following ledger accounts will, it is hoped, make clear the reasons for the above rule:

First proposition. Share profits ½ and ½; capital unequal. Interest 6%.

A		B		Profit and Loss	
P&L $3,000	$60,000	P&L $3,000	$40,000	Int. $6,000	A $3,000
	I. 3,600		I. 2,400		B 3,000

Second proposition. Share profits 2/3 and 1/3; capital unequal. Interest 6%.

A		B		Profit and Loss	
P&L $4,000	$60,000	P&L $2,000	$40,000	Int. $6,000	A $4,000
	I. 3,600		I. 2,400		B 2,000

Third proposition. Share profits 2/3 and 1/3; capital equal. Interest 6%.

A		B		Profit and Loss	
P&L $4,000	$50,000	P&L $2,000	$50,000	Int. $6,000	A $4,000
	I. 3,000		I. 3,000		B 2,000

Fourth proposition. Share profits ½ and ½; capital equal. Interest 6%.

A		B		Profit and Loss	
P&L $3,000	$50,000	P&L $3,000	$50,000	Int. $6,000	A $3,000
	I. 3,000		I. 3,000		B 3,000

REFERENCES FOR COLLATERAL READING:

Journal of Accountancy, Vol. XV, pages 231, 236, 240, 241, 329, 330, 334, 427, 428, 431; Vol. XVI, pages 89, 145, 22.

Philosophy of Accounts, Sprague, Chapters XII and XIII.

CHAPTER XXXIII

INSURANCE

Insurance may be defined as a contract whereby, in consideration of a premium paid by one party to another, the former is protected by the latter from loss. Insurance may be of various kinds: Life, fire, accident, health, marine, credit, burglary, fidelity and surety, employers' liability, etc. The accountant is little concerned with the nature of the insurance. What does affect him directly is what relation a loss and corresponding settlement bears to the accounting, and in a similar manner what relation the premiums paid bear to the accounting. It is true, of course, that he should have a more or less general idea of the nature and operation of the various kinds of insurance contracts referred to, for which reason they are briefly described here.

Life insurance is not usually involved in the accounts of an organization. It is true that some proprietors may be found who make a practice of merging their private with their business affairs and accounts; however, this is not to be countenanced as good practice. In such cases, of course, instances have been known where sole proprietors either charged the premiums on personal policies to the business as an expense or capitalized them on the books of the business as an asset. This is a matter of bad general practice rather than having anything to do specifically with the matter of insurance. It is mentioned here, however, because of the fact that insurance is one of the items which sole proprietors seem prone to mingle with their business accounts. There has been a custom for some time among copartnerships and corporations to insure its members or officers for the benefit of the copartnership or corporation. The loss of a partner may be very keenly felt by a surviving partner. In the same way the loss of an officer or important employee to a corporation might prove detrimental. It should be borne in mind strictly in these cases that the insurance is taken out by the concern and not by the individual, and that the concern pays the premiums. It means, therefore, that the concern and not the individual should either charge to expense or capitalize the insurance premiums paid. As to capitalization, there can be no well-founded objection to it

after the third annual premium, except in the case of straight life, has been paid, since the law requires that such policies shall have a cash surrender value. It is, therefore, perfectly proper to capitalize the premiums at their cash surrender value.

It is doubtful if the accountant would ever come in contact with health insurance in connection with the affairs of a business concern. It is possible, of course, to imagine a case in which a health policy would be carried by the concern on account of some of its officers or employees. This, however, is not apt to be the case, as a health policy is usually taken out by an individual in his own behalf in order that he may be reimbursed for loss of salary and expenses in case of sickness.

It might be interesting to note what would transpire in case of the death of an employee of a given company. To do this the application must be made, of course, to both a copartnership and a corporation, since in each case the situation would be slightly different. In the case of a copartnership, upon receipt of the amount of the policy cash would be charged and profit and loss credited. Thus the surviving partner and the estate of the deceased would participate to the extent in which the partners had previously been interested in the profits. Since the object of the insurance is to protect the surviving partners against loss of capital through the sudden withdrawal by reason of the death of a partner, it sometimes happens that the policies are drawn in favor of the surviving partners. In such a case it usually happens that each partner is equally insured for the benefit of the firm, and while each stands his share of loss through the payment of the premium he takes the risk of failing to survive his partner. Where this situation existed, upon receipt of the cash in settlement of the policy cash would be charged and the respective capital accounts of the surviving partners credited.

While contact with life insurance problems on the part of the accountant is somewhat rare, fire insurance demands his attention in practically every concern with which he comes in contact. In practically every instance it is the question of premiums. Occasionally it is in connection with a fire loss. Since it is the question of premiums that most frequently concerns him, they may perhaps be discussed first.

A premium is paid for protection covering various periods up to three years. The author's experience leads him to observe

that while formerly the three-year period was a popular one such policies are becoming fairly scarce and the year at the present time seems to be the usual period. The pertinent fact in connection with the premium is that it covers a period of time. It is, therefore, evident that the premium, which is to be treated as an expense, should be spread over the period of time covered and not charged to expense in the month or period in which the premium was paid or the expense incurred. It will thus be evident that insurance covering a period running beyond the date upon which the account period closes may be considered as a deferred charge to expense, or, as it has sometimes been called, an asset by courtesy. The problem which confronts the accountant is that of determining the amount of the unexpired insurance. It may be mentioned here, however, that the necessity for this calculation may be avoided by having all policies lapse on the same date, which practice, in case the date coincides with the end of the accounting year, will give rise to a situation in which there is no unexpired insurance involved. Having all new policies written for periods ending on December 31, for example, there would be no unexpired insurance at the end of the year. This will not be true, of course, if the books are closed on June 30, but the unexpired insurance at such time will be one-half the annual premium subject to slight adjustment perhaps on account of new policies which have been written for periods less than a year. This scheme has been advantageously employed in a number of cases which have come under the writer's observation, and much figuring and bookkeeping has thereby been avoided. Notwithstanding the fact that the practice is a good one, it is not a general one, and the accountant is called upon to value the unexpired insurance. To the end that the procedure may be illustrated by practical application, the following applied theory test is suggested:

London, Liverpool & Globe, No. 705,965, Amount, $10,000. Dated June 17, 1912. One year. Premium, $56.27.

North British and Mercantile, No. 714,837. Amount, $6,000. Dated October 23, 1912. One year. Premium, $31.48.

Scottish Union and National, No. 4,220,876. Amount, $3,000. July 14, 1912. One year. Premium, $18.26.

American of Newark, No. 1,427,832. Amount, $7,000. Dated February 22, 1912. One year. Premium, $47.82.

Aetna Insurance, No. 528,789. Amount, $5,000. Dated February 28, 1912. One year. Premium, $322.13.

Compute the unexpired insurance December 31, 1912.

It is probably the custom in computing unexpired insurance to divide the annual premium by 365 or 366 days, as the case may be, and after thus ascertaining the rate per day multiply the said rate by the number of days unexpired. A computation of this kind is, of course, accurate, but the process somewhat laborious. In cases where extreme accuracy is not necessary it suffices many times to take the unexpired period as so many twelfths of a year, depending upon the proximity of the expiration date to the end of the month. For example: A policy expiring on the third of May would be treated as four-twelfths expired.

The difficulty involved in setting up unexpired insurance is sometimes overcome by having an insurance register. This is a book which provides for the name, number, amount, date, period and premium of each policy and has twelve columns, corresponding to the months of the year, over which each premium is distributed. It thus becomes an easy matter to determine by footing the column corresponding to a given month what the charge to expense for that month should be. When the insurance registered does not obtain, the method of treatment in closing the books will be to charge insurance unexpired and credit insurance. But where the register is used, the procedure will be the reverse, namely: having charged all premiums to an unexpired insurance account, in closing the books insurance will be charged and unexpired insurance credited in the amount shown by the footing of the corresponding month in the insurance register.

An important question arises frequently in connection with unexpired insurance. As is probably known, if a policy is canceled the assured will not receive back the proportion of the premium corresponding to the unelapsed time. For example: If a policy on which the premium is $60 per year is canceled on the 30th of September, the assured will not receive as a return premium $15, but approximately $12.75. This is due to the fact that the fire insurance companies make use of what is known as the short

rate basis. It is considered by the companies that it costs them more to carry a risk for a short time than a longer time. There must also be some provision for the expense of securing the business, such as the agent's commissions, etc. For this reason the companies make use of a short rate table in New York. For example, such as is prescribed by the New York Fire Insurance Exchange, which has the effect of reducing the value of the unexpired insurance. The question which now arises is, Shall the unexpired insurance be figured on the basis of the unexpired time or on the short rate basis? The argument in favor of the latter is that the amount so determined would be all that could be obtained on the premium were it to be canceled. Against this there is the contention that it is not expected that the policy will be canceled and that, therefore, to a going concern the premium has its full value and it may be with propriety pro-rated over the period which it covers. It is, therefore, thought that a logical answer to the question as to the basis upon which unexpired insurance should be computed consists in saying that in the case of a going concern it may be pro-rated, whereas, in the case of a concern about to go into bankruptcy, or in making up a statement of affairs, unexpired insurance should be figured on the short rate basis.

A question frequently arises with regard to fire losses as to the relation of the insured to the company and the rights of each party to the contract. The settlement of a fire loss will depend usually on whether or not the policy is a "valued" one and whether or not the property is insured under what is known as the 80 per cent. clause. Many States have what are called "valued policy laws," under which the insured receives the amount stated in his policy in case of a total loss. There is an exception to this rule in some States in that allowance is made for depreciation. The person insured for $10,000 and having a total loss would in some States receive the full $10,000, whereas in others he would receive $10,000 less an estimated amount for depreciation. The rates of valued policies are naturally higher than on other kinds. In the majority of cases the policy stipulates that:

> "This company shall not be liable beyond the actual cash value of the property at the time any loss or damage occurs, and the loss or damage shall be ascertained or estimated ac-

cording to such actual cash value, with proper deduction for depreciation however caused, and shall in no event exceed what it would then cost the insured to repair or replace the same with material of like kind and quality; said ascertainment or estimate shall be made by the insured and this company, or, if they differ, then by appraisers, as hereinbefore provided; and, the amount of loss or damage having been thus determined, the sum for which this company is liable pursuant to this policy shall be payable sixty days after due notice, ascertainment, estimate and satisfactory proof of the loss have been received by this company in accordance with the terms of this policy. It shall be optional, however, with this company to take all, or any part, of the articles at such ascertained or appraised value, and also to repair, rebuild or replace the property loss or damage with other of like kind and quality within a reasonable time on giving notice, within thirty days after the receipt of the proof herein required, of its intention so to do; but there can be no abandonment to this company of the property described."

There would appear from an accounting point of view to be some contradiction of terms in the above paragraph. For example: "actual cash value, with proper deductions for depreciation." It is understood that by this is meant what the accountant looks upon as book value, namely, cost less depreciation. It will thus be seen that under contracts of this kind the insured will, in case of a total loss, receive, not the amount stated in the policy, but an amount corresponding to the value of the property destroyed. This would be true as a rule, except in cases where the insured becomes a co-insurer under the 80 per cent. clause. This clause requires that the property shall be insured for at least 80 per cent. of its value. In the case of failure to do this the insured becomes proportionately liable for the loss to the extent of the difference between what the property is insured for and 80 per cent. of its value. Assume, for example, that the value of a certain manufacturing plant is $100,000; that the insurance carried thereon is $50,000; that the loss through fire is fixed at $40,000. The insured will, upon settlement in such a case, receive not $40,000, the amount of the loss, but $25,000, or five-eighths of the loss. The insured will have become a co-insurer with the

company to the extent of three-eighths and the loss will be borne by the company and the insured in the proportions of five-eighths and three-eights respectively.

Much discussion has occurred in accounting circles with regard to the position into which the insured puts himself by providing for depreciation of his property and showing same on his books and balance sheets. The question of the matter of insurance has very often arisen in connection with the manner of stating the property and reserves for depreciation accounts on the balance sheet. It has been claimed by some that the reason for showing the reserves broad instead of deducting them from the asset accounts was to avoid having fixed any book value on the assets whereby the insured could be bound by the company in case of a fire loss. It was argued that writing the asset down and showing it net on the balance sheet, or showing the cost and deducting the reserve on the balance sheet, was an admission of the depreciation value of the property, whereas showing the asset at its cost and placing the reserve on the liability side gave the same effect to the proprietor's net worth, at the same time the proprietor did not admit publicly that the reserve was anything more than his estimate of the depreciation. The absurdity of this contention will be apparent from the following quotation, taken from the standard form of policy:

> "The insured, as often as required, shall exhibit to any person designated by this company all that remains of any property herein described, and submit to examinations under oath by any person named by this company, and subscribe the same; and, as often as required, shall produce for examination all books of account, bills, invoices, and other vouchers or certified copies thereof if originals are lost, at such reasonable place as may be designated by this company or its representatives, and shall permit extracts and copies thereof to be made."

It would appear from the above as though this were an excellent argument as to why proprietors should exercise care in computing depreciation and should proceed with such computations scientifically.

The treatment of fire losses in the accounts presents an interesting topic for discussion. As to the procedure, it may be said that there are two forms. The first and more logical one, since it

follows the facts historically, would consist in relieving the property account and charging the company at the time the loss is determined. The other consists in deferring any entry until such time as the cash is received, when the property account is relieved. The principle is the same in either case, regardless of whether the policy is a valued one or the property is or is not insured under the 80 per cent. clause. The only difference in any of these variations would be the extent of the loss. Assume, for example, the cost of a certain piece of property to be $100,000; reserves having been set up to the extent of $20,000; a fire occurs and the loss is fixed at $60,000. Under the first procedure the reserve will first be closed out against the asset account, making the balance $80,000. The company will then be charged on the books with $60,000, profit and loss will be charged with $20,000, and the property account will be credited with $80,000, thereby closing it out. At the time the settlement is actually made cash will be charged with $60,000 and the company credited. This procedure shows all the steps in the transactions and is to be preferred. The second form of procedure consists in deferring the entries until such time as the settlement is made, when the reserve will first be closed out to the property account, leaving a balance of $80,000, while cash will be charged in the amount of $60,000, profit and loss in the amount of $20,000, and the property credited with the amount of $80,000. In so far as profit and loss is concerned the reverse of the above would be true if the amount of the loss were fixed at a figure higher than the book value of the property. The entries, as outlined above, would operate on the same principles in the case of other forms of insurance, such as marine, burglary and fidelity. In all cases the property lost would be replaced by the amount recovered from the insurance company and the difference debited or credited to profit and loss in accordance with the relation which the settlement bore to the book value of the property. Credit insurance works out practically the same way. The company bases its risk on the ratio of sales to losses of the insured in past years. In the case of loss the amount received from the company takes the place of that which was not received from the debtor, and the difference is charged to profit and loss. A well organized and efficient credit department is very often cheaper than credit insurance.

Employer's liability insurance is somewhat different from any of the above mentioned. On May 30, 1908, the President of the United States approved an act of Congress "granting to certain employees of the United States the right to receive from it compensation for injuries sustained in the course of their employment." Similar laws have been passed by various States, among the most prominent of which are Massachusetts and New York. Thus it will be seen that business concerns in the various States where these laws exist have become liable for damages for injuries sustained by employees in the pursuit of their work. A very natural consequence of these laws was the springing up of employers' liability insurance companies to take the place of and relieve employers from the obligation of having to settle with employees in cases of accident. When an accident occurs the employer turns the case over immediately to the insurance company, which either makes an immediate settlement with the injured workman or defends the suit in case litigation ensues. For this reason the insurance company charges a premium which, presumably for the want of a better or more logical basis, is computed on the amount of the yearly payroll. Since the amount for the current year cannot be determined in advance, it is the custom in computing the premium to base it on the payroll of the previous year. The premium is then paid. At the end of the year a report is made to the company, showing the exact amount of the premium for the current year and the correct premium is then computed, the difference between the previous premium and the correct one being adjusted either by a payment to or rebate by the insurance company. Here the matter of adjustments of asset accounts does not enter in. There is nothing actually lost and there is nothing to be replaced, for the reason that no settlement is made by the company to the insured. All that the company does is to relieve the insured of the risk of having to stand damage suits, and for this insurance the insured pays a premium which is charged to expense. It should be noted that in this case, as well as other forms of insurance above mentioned, where premiums are paid in advance, it is perfectly proper to set up the proportion corresponding to the unexpired time when the books are closed.

CHAPTER XXXIV

TAXES

A tax may be considered as a contribution imposed by the government upon its citizens for its support. In exchange, the government extends its protection to the life and property of citizens through its various police organizations. A tax is somewhat different from an assessment. An assessment is something which is levied but once, usually for the purpose of some local improvement. A tax recurs from year to year.

Taxes may be divided into various classes, such as federal, State, county, municipal, etc. The federal government imposes a capital stock tax and an income and profits tax on corporations. There is also an income tax on individuals, co-partnerships and other forms of business enterprise. Federal tax legislation gives rise to changes in the law so frequently that it is impossible to discuss satisfactorily the accounting thereunder except in special treatises which are revised from year to year. It must suffice herein to say that no accounting is complete which fails to take into consideration the liability for federal taxes, even though entries are based on estimates. For guidance in federal tax matters reference should be had to Montgomery's Income and Profits Tax Procedure and Regulations 45 of the United States Treasury Department.

Taxes, other than federal, vary so greatly in different localities that it is likewise impossible to cover the subject adequately in a general discussion. The accountant should acquaint himself with the tax laws affecting the organization whose accounts are under consideration, and apply the principles relating to taxes in accordance with the conditions existing.

In New York City there is a tax on personal property imposed on corporations, as well as a tax on real estate. In order that a clearer conception of real estate taxes may be had it will probably be of interest to run through the procedure for computing the tax as it exists in the city of New York. An authority on the subject has very aptly said that "the city's money is spent before it gets it and that this fact effects the financial situation and real estate taxation to some degree." The budget of appropriations for an ensuing year is made in the fall.

The budget is based on the estimate made by the various city departments and is presented to the Board of Estimate and Apportionment. As approved by this board the budget becomes effective, and with the beginning of the new year the various departments begin their disbursements in accordance therewith. Asessments of property having been made during the preceding year, on October 15 the tax department opens its books on the assessed values of real and personal property. These books, which are subject to inspection and corrections by the affected parties, remain open until November 15, although hearings of complaints are heard until the first of February, when the books are closed and the assessment rolls are made up. On the first of March the assessment rolls are sent to the Board of Aldermen, which fixes the tax rate, taking into consideration the budget, the estimated revenues reported by the comptroller and the total assessed value of real and personal property subject to general taxation. As an illustration of the manner in which the tax rate is fixed the figures for the year 1912 may be used:

Assessed values:		
Real property.......	$7,861,898,890.00	
Personal property....	342,963,540.00	$8,204,862,430.00
Appropriations:		
City	$170,873,102.43	
County	10,604,762.66	$181,477,865.09
Less estimated revenues.................		30,971,807.62
Amount to be raised....................		$150,506,057.41

Deducting $30,971,807.62 from $181,477,865.09 will give the amount to be raised by general tax. By dividing $150,506,057.47 by $8,204,862,430 it will be seen that the ratio of the former to the latter is .0183 plus, or 1.83 plus per cent. This rate, while being the average for the entire city, fluctuates as among counties, varying from 1.83 per cent. in New York County to 1.92 per cent. in Richmond County. Taxes are now (1922) due and payable in the city of New York in two instalments, the first half on May 1, the second half on November 1. If the first half is paid in May interest is allowed on the amount from May 1 to

November 1. If not paid, interest is charged for the same period. In the month of November taxes are payable without interest, except as to the adjustment necessary to provide for the first half, while, on the first of December, a penalty of 1 per cent. is added, and on the 15th of January interest begins to run at the rate of 7 per cent.

> "Whenever any tax or assessment shall remain unpaid for three years or any water rent shall remain unpaid for four years the tax lien on the property will be sold to satisfy such arrears of taxes, assessments or water rents, and all taxes, assessments and water rents up to a day to be named in the advertisement of sale as stated therein."

An important point in connection with taxes is the accrual and treatment of taxes paid in advance. The accruing of the taxes will depend very largely on the fiscal period and the date at which the books are closed. Concerns which close their books monthly find it necessary to accrue from month to month if the taxes are of sufficient size and importance to warrant this treatment. In this way the proper charge is made to the expense accounts for the month and the proper liability accumulated through the accrual account. This stands until sucn time as the taxes for the year are paid. The accrual account is then (in New York State) automatically converted into a prepaid account, since the taxes will have been paid for the entire year. For the purpose of making this clear the following illustration will serve:

Assuming the assessed value of a piece of property in New York County to be $100,000 and the tax rate for the year 1912 1.83 per cent., the tax for the year will be $1,830, or $152.50 per month. If the books were closed monthly or, at least, if monthly statements of income and profit and loss were prepared, then the entry to be made each month would be as follows:

Taxes	$152.50	
To Taxes accrued................		$152.50

This entry would be repeated each month and the charge to taxes would be closed out monthly to profit and loss. The taxes accrued account would accumulate so that at the end of the first

six months, or at June 30, the account would show $915. If the tax bill for the first six months is now paid, taxes accrued will be charged and cash credited in the amount of $915. A further complication may, however, in practice take place in connection with the taxes for the first six months as well as those for the year. Tax bills are not sent out by the city. It is necessary to request them from the receiver of taxes. Assuming now that the request for a tax bill for the first six months of the year has been made prior to May 1, and, as a matter of fixing the date, has been received on April 23, at the end of April the taxes accrued will amount to $610, but the tax bill will amount to $915. This means that the bill includes not only the first four months but also the months of May and June. The question which now arises is the treatment of the tax bill. One method of treatment would be to charge taxes accrued and credit cash with $915. This will convert the taxes accrued account automatically into a prepaid taxes account and the prepayment will be in the amount of $305. The more scientific manner of treating the matter would be to charge taxes paid in advance and credit taxes accrued with $305 and subsequently charge taxes accrued and credit cash with $915 when the payment is made. The amount of $305 in the taxes prepaid account will be disposed of in the months of May and June by charging taxes in the respective months and crediting taxes paid in advance. The second six months would not differ in any respect from the first six months except that in case payment of the first six months had not been made when due. Under such circumstances the principle involved would be the same, but the amounts would change. The charge to the taxes account would be made regularly from month to month, but the taxes accrued account would increase gradually in accordance therewith. If the tax bill is paid before the end of the year there will be an unexpired portion to be taken care of. If not paid until after the end of the year this, of course, will not be true.

The question of interest is one which sometimes causes discussion. The question is whether interest on taxes should be charged to the interest account or to the account for taxes. If the matter is to be scientifically treated it is probable that the interest should be charged to the interest account, since the concern under discussion has in effect a contract as to the dates upon which payments are to be made. If payments are not made and the tax-

payer has the use of the money he pays therefor interest. If the capitalistic theory is to be consistently maintained, interest on taxes will have to be charged to interest. It is very probable, however, that in the majority of cases interest will be, even though erroneously, added to the taxes paid.

In some States taxes are payable for the year in advance. In such cases the treatment of the taxes becomes analogous with that of interest paid in advance. The taxes are set up in a prepaid account and charged out to the expense account as time passes.

It will be noted in many published balance sheets, and most especially in the case of banks, that the taxes are shown on the liability side under a caption called reserve for taxes. This would appear to be merely a loose manner of expressing the situation, since, as a rule, a reserve has not been created for taxes any more than for any other current liability. It would seem that this item might with most propriety be called taxes accrued. There would be no objection and perhaps in certain instances it might be desirable to make a distinction between the taxes accrued and due and those accrued and not due. Difficulty is also encountered at times in ascertaining the proper amount of taxes for the year. This is before the tax rate is ascertained and before the tax bills can be obtained. It is customary in such cases to use the rate and assessed value for the preceding year. This, of course, is in effect an estimated amount, and it may reasonably happen that the correct amount for the year when ascertained will disagree with the estimated amount. The proper method of treatment is to proceed with the monthly charge to taxes and credit to taxes accrued on the estimated basis until such time as the correct amount has been ascertained, when the charge should be revised and the adjustment necessary to put the account on the proper basis be made. Thus, it might happen that in the case of a given concern the amount of taxes estimated for the year might be $1,500. Such an amount would mean $125 a month. If the charge for taxes were made monthly, then at the end of the month of April there would have been charged to taxes and credited to taxes accrued $500. If now the tax bill for the year is obtained and it is found that the taxes for the year will amount to $1,830, then it is apparent that instead of having charged $500, $610 should have been charged. It will then be necessary to make a supplementary charge for the four months of $110, the difference

between \$500 and \$610, or the difference per month between \$125 and \$152.50. If, perchance, the estimate will in any case have been too high, the adjustment necessary must be the reverse of the one just described. As a practical matter, however, this is not liable to occur, since taxes are inclined to increase rather than to decrease.

CHAPTER XXXV

MISCELLANEOUS PROFITS AND LOSSES

In every business there are necessarily profits more or less uncommon which are not directly connected with the particular line of business in which the organization is engaged. For example: Sales of land or buildings, machinery or tools, horses, wagons, harness, furniture or fixtures, materials and supplies, scrap, etc. Such transactions are incidental and are not contemplated in the scheme of business for the realization of profit. That there are profits in connection with such sales, as well as losses, may not be ignored. They are irregular and intermittent and may not be depended upon to produce income. Only such items should be considered as income as recur regularly. Such is the distinction to be made between profits and income. The assets above enumerated are normally held for the purposes of the business. If sold at a figure either above or below their cost a profit or loss results. Such profits should be classified as miscellaneous. This group should also include, providing such items are considered as profits, appreciation of land and appreciation of securities. With regard to such treatment of these items, it may be said that the best practice does not countenance appreciation as being considered a profit. Profits, strictly speaking, do not arise until a sale has taken place. If it is desired to show such assets as land, securities or materials and supplies at their market price, it would be very much better to credit the increase to a reserve instead of considering such increase as a profit. The practice of so treating a theoretical increase in value is responsible for the well-known expression "anticipating profits." Such practice has nothing in its favor and everything to condemn it. The items are merely mentioned here on account of the tendency of many concerns to anticipate profits and, while contrary to good practice, place the items in a definite class in case they are so treated.

For the purpose of general classification there has been included among miscellaneous profits amounts previously written off—now collected. This is satisfactory so far as general classification is concerned, but if the refinements are to be entered into,

the item should be distinguished from the other items in this group and preferably treated as an addition to surplus rather than a miscellaneous profit. This item illustrates very well the distinguishing line between profits and surplus. Profits should cover only items having to do with the present period. The recovery of an item previously written off takes us naturally to surplus, since it must mean that the writing off had taken place in a previous period and the surplus, therefore, correspondingly decreased. If such a loss has been charged to a previous period and the loss is now wholly or partially recovered, credit for same should not be given to the present period but to the previous period. Since the nominal accounts for the previous period have been closed, there remains only surplus. Surplus should, therefore, be credited.

It sometimes happens that where an accounting period is a lengthy one, possibly a year, there will have been written off during the early part of the year certain bad or doubtful accounts. It may subsequently happen that within the same year a collection will be made on some of the supposedly bad accounts. In case of such occurrence the credit for the recovery should be made to profit and loss, or to the account for bad and doubtful accounts written off, instead of to surplus.

In closing the books the procedure will depend entirely upon whether separate accounts have been opened for the respective miscellaneous profits or whether such items have been carried direct to profit and loss. The latter is probably the most usual method of treatment. If separate accounts have been raised, however, they should be closed out to miscellaneous profits, which accounts would correspond to the seventh section of the statement of income and profit and loss, namely: profit and loss credits. What usually happens with these items is that either at the time the sales took place or when the books are closed the credits were made direct to the profit and loss account. In preparing the statement it, therefore, becomes necessary to analyze the credit side of the profit and loss account in order that comprehensive details may be set forth in the statement.

Miscellaneous losses comprise not only the complementary side of transactions enumerated above, such as sales of land, buildings, etc., but also provision for doubtful accounts, depreciation of

buildings and miscellaneous items, such as amortization of patents, trademarks or good-will and organization expense written off.

With regard to doubtful accounts, some distinction should be made between the provision for doubtful accounts and doubtful or bad accounts written off. Provision for doubtful accounts anticipates a loss through such causes and provides for it in advance. In making such provision it is customary to base it on a sales charge concurrent with the charges to accounts receivable. Varying rates, ranging from 2 to 5 per cent. or even higher, depending upon the experience of the organization in past years, are used. The charge to profit and loss is offset by a credit to a reserve for doubtful acounts. This has the effect of providing within a given period for losses which may occur on accounts receivable raised in connection with sales made during the same period. Good practice advocates the making of this charge monthly as sales are made. If losses are subsequently sustained they are charged to the reserve and not to profit and loss, for the reason that provision for them has already been made through a preceding charge. If ultimately there remains in the reserve an amount corresponding to the provision that was not required, this amount may be closed out to surplus and not to profit and loss.

It will thus be seen that there is a considerable difference between providing for doubtful accounts and writing off accounts which ultimately prove bad. Where the latter method is used care should be exercised to determine whether the loss is on sales which have taken place during the current or during a preceding period. For losses on sales during the current period, profit and loss may be charged. For losses on sales in prior periods surplus should be charged. The reason in the latter case is that the profits of the preceding period and, consequently, surplus receive credit for a sale which in a succeeding period proved to be bad and resulted in a loss. Concerning amortization of patents, trade-marks or good-will, organization expense written off, it may be said that there are two methods of treatment available for use. The assets may thus be written down, in which case profit and loss will be charged and the assets credited, or their value may be reduced by the creation of a reserve. In the latter case profit and loss will be charged and the reserve credited.

The remarks with regard to the closing of the profit accounts apply with equal force to miscellaneous losses. It is not probable

that separate accounts for the respective losses will be raised. If they are raised, they should be closed out to an account for miscellaneous losses or to profit and loss. It will usually happen, however, that these losses will have been charged direct to profit and loss and that it will be necessary in preparing the statement of income and profit and loss to analyze this side of the profit and loss account in order that the details of losses may be set forth in the section of the statement of income called profit and loss charges.

It will no doubt have been observed that dividends payable have not been included in the classification presented. While they may be appropriately discussed at this point, they are not to be looked upon as an item of expense. They are rather to be considered as a distribution of profits. Profits or losses in the case of a sole proprietor or copartnership will be disclosed by the profit and loss account and will be closed out to proprietorship; in accordance with the division agreed upon in the contract, in the case of copartnership. In corporations profits may be distributed by vote of the directors from the surplus arising from the business. Technically profits are closed into the surplus account and the surplus distributed as dividends. After the action of the directors in declaring a dividend the proper entry consists in debiting "dividends declared" or surplus and crediting "dividends payable." If the account "dividends declared" has first been charged, it will be closed out to surplus. Dividends declared becomes the nominal account while the liability is taken up in the dividends payable account. When the liability is liquidated by the payment of cash, dividends payable is charged and cash credited. Some concerns do not raise the account for dividends payable, waiting until the payment is made before charging the nominal account. This is not thought to be the best practice, since it fails to show the history of the dividend transactions and may result in neglecting to show a liability for dividends declared at closing time, which neglect has the effect not only of failing to show this important point but to show an augmented surplus.

CHAPTER XXXVI

ACCRUALS AND CLOSING ENTRIES

Accruals are necessary in accounting if true financial condition and correct operations are to be shown. Some concerns run their books and prepare their statements entirely in accordance with the cash transactions. Operations are controlled by the receipt and disbursement of cash. Thus we hear of books kept and statements prepared on a cash basis. Scarcely anything could be further from the truth in so far as condition and operations are concerned. Some business men will insist that they are not sure of any profits until they have them in cash. With some, cash seems to be a mania. They refuse to recognize the fact that their financial condition is the matter of importance and that financial condition is represented by both assets and liabilities. They refuse to recognize the fact that cash is only one of the items which make up the assets. The man who contends that he has nothing except that he has it in cash cannot, it seems, consistently admit that he owes anything, yet there is never very much difficulty in drawing out this admission. Time is the medium which measures the majority of business transactions, and it is the relation of these transactions to the time which has elapsed, or is to elapse, that must be taken into consideration in scientific accounting. Most accounts seem to have certain loose ends which must be gathered up before the books can be closed. To do this consistently the accountant or bookkeeper should go through the accounts one by one, scrutinizing and studying each carefully, in order to determine whether there is anything about it which requires treatment in order that it shall show true condition and correct operations. Taking up the items in the order that they will usually appear in the ledger, they may require treatment in closing as follows:

Land may have increased in value and it may be desired by the proprietor that it be shown at the increased value in the books. There is, of course, a natural objection on the part of the accountant to writing up land and taking the increment into profits. Conservatism dictates that wherever it is necessary or desirable to increase the figure at which land is carried that the

increase shall be offset by a reserve. This will, of course, call for an entry charging land and crediting reserve for appreciation of land.

Buildings will be subject to depreciation, which, in closing the books, must be taken into consideration. The same statement will apply with equal force to equipment, furniture and fixtures, horses, wagons and harness, motor trucks, etc. The depreciation may be handled in one of two ways: either by writing down the asset through a charge to profit and loss and a credit to the asset, or making the charge to profit and loss, or an account called provision for depreciation, and crediting a reserve for depreciation. The latter method is to be preferred, since it leaves the asset account unaffected by depreciation and permits it to show bona fide additions and deductions, while the value of the asset is correctly shown on the balance sheet through the offset in the form of a reserve.

Investments may fluctuate in value and, consequently, it may be desirable to adjust their book value in closing. The rule regarding investments is that they shall be shown at cost. In the case of securities the rule has usually been to show them at cost if cost is lower than the market, but if cost is higher than the market to reduce them to the market. It is not thought advisable to adjust the account in the books to keep pace with fluctuations in market values, but the effect is secured by raising the proper reserves. Not alone securities, but any investments which fluctuate in value, may be adjusted by means of reserves. If the investment has increased in value, an entry may be made charging the asset account and crediting a reserve for appreciation of investments. If the investment has decreased, profit and loss may be charged and a reserve credited, which may be called reserve for depreciation of investments.

Materials and supplies, goods in process and finished goods may all require adjustment at closing time. The remarks applicable to investments will apply equally well to materials and supplies. No one can object to their being carried at cost, because of the fact that it is intended that they shall be used in the product and not sold. Hence the market value can have little effect upon them. There would be no more excuse for writing down materials and supplies than for writing them up. They are written down in accordance with the theory that the market has fallen and

they could be produced now at a lower figure than formerly. It would seem to make little difference whether the excess of cost over market were written down to profit and loss or whether it were charged into the product at cost. On the other hand, it would seem absurd to take a fictitious profit on them and charge them into the cost at a higher rate if the market had risen. The point at issue seems to be entirely one of whether they are to be valued at what they would bring in the market or at what they are worth for manufacturing purposes. Ultra-conservatism requires that they shall be carried at cost when cost is below the market, but carried at the market when the market is below cost. It would seem that if it is desirable to take cognizance of the relation of cost to the market price that this might be accomplished through the medium of reserves for balance sheet purpose, rather than upsetting the costs at which the materials and supplies are to be charged into the product.

Goods in process may have included in them in certain instances manufacturing and general overhead. Here again it may be necessary to resort to reserves for the purpose of proper valuation in the balance sheet, without disturbing the function of control which is the essential of these accounts. Stationery, printing and postage will likely require adjustment in closing, unless arrangement has been made to carry both asset and expense accounts for these various items. Even so, it will frequently be the custom to defer the charge of these items to expense accounts until just before closing the books.

The accounts representing the current assets will very generally call for adjustment before closing. Cash is the usual exception to this rule, but even it may require adjustment on account of interest on bank balances and similar items. Accounts receivable will need to be scrutinized so as to determine whether or not there are among them any accounts which are bad or doubtful. These should be provided for through the medium of reserves rather than written off. Some accounts may carry interest, which should be accrued before closing. Notes receivable are of the same character and must receive attention with regard to the interest which has accrued on them.

Special and miscellaneous assets, like sinking funds, etc., may require adjustment, and accounts like good-will, insurance and advertising paid in advance may need to be written off or pro-

vided for. Consignments may also have to be taken care of if consignments have not been carried on the general books. Accounts sales should be made up and the proper entries made on the books, usually charging the cost of sales and crediting accounts payable in favor of consignors.

With regard to the accounts for liabilities, the interest on any bonds outstanding should be accrued, as should also taxes, wages and the interest on accounts and notes payable. If there are any deferred credits to income they should be examined in order to determine if any proportion may appropriately be taken into the earnings of the period.

In a similar manner the nominal accounts should be gone through, giving attention to any sales made in the period not yet booked; also any returns or sales allowances pending settlement. Attention should likewise be given to purchases and purchase returns and allowance. Inventories should be applied and the proper cost of purchases applicable to manufacturing or sales should be determined; salaries of superintendent, office salaries and expenses of the factory accrued, in the case of a manufacturing concern, and the true cost of goods sold ascertained by means of the inventories, unless the direct method of ascertaining the cost is in vogue. The accounts for salaries of salesmen, traveling expenses of salesmen, commissions and advertising should be carefully gone into for accruals and adjustments affecting the expenses. Salaries and expenses of the general office should likewise be treated.

After the proper entries have been made in the accounts the nominal accounts may be closed direct to profit and loss, or they may first be closed into the respective group accounts, which in turn will be closed into profit and loss. This is what is meant in reality by closing the books. Although the making of the accruals and the preparation of the balance sheet and statement of income and profit and loss from the trial balance before closing has come to be referred to technically by the same expression, it makes little difference practically in the preparation of the statement of income whether or not the nominal accounts have actually been closed. If they have been, it will be necessary to analyze the profit and loss account, or, in other words, pick the items out of said account. Whereas, if the nominal accounts have not actually been closed out, the statement may be prepared from the trial balance or direct from the accounts. It is usually easier to pre-

pare the statement if the nominal accounts have not been closed out. Where the accounts have been scientifically arranged the preparation of the statements is greatly facilitated, since the items will appear in the statements in practically the same order that the accounts appear in the books.

CHAPTER XXXVII

THE PREPARATION OF FINANCIAL STATEMENTS

Financial statements may be generally classified as follows:

Balance sheets;
Statements of income and profit and loss;
Statements of affairs;
Deficiency accounts;
Statements of realization and liquidation;
Statements of receipts and disbursements.

It is not improbable that various kinds of statistical statements may be included in this classification. It is thought, however, to be more consistent to confine the classification to the above and consider statistical tables, which are invaluable for administrative purposes, as schedules supporting the above statements.

There has been much discussion concerning the various names of the above-mentioned financial statements. Concerning balance sheets it would seem that there need be little or no discussion. The balance sheet may be general or detailed in the manner in which the information is presented. It may be condensed or consolidated. Irrespective of these matters it still remains a balance sheet. The question is sometimes raised as to whether it is more appropriate to present it in account form or report form. There would seem to be but one answer to this question, and that is: whichever suits the fancy of the person who is preparing the balance sheet. The information is there, whether assets and liabilities are presented side by side or one group above the other.

With regard to the statement of income and profit and loss there is perhaps room for more discussion. One author has tabulated the different names by which this statement is known and presents some fifteen of such. It has been variously referred to as the profit and loss account, the income and profit and loss account, the trading and profit and loss account, the manufacturing, trading and profit and loss account, etc., etc. The information contained should be the same, no matter by which name the

statement is known. It will be observed that the difference seems to occur in that some are known as statements and some as accounts. The difference is usually technically referred to as that which exists between the account form and the report form. The account form, as its name implies, contemplates the presentation of the information classified and arranged with regard to debit and credit. The report form undertakes to present the information more or less in narrative or running form, deducting debits from credits and vice versa. The especial advantage of the report form is that it is adapted to comparison.

The balance sheet is a financial statement which shows the financial condition of an organization at a given moment of time.

The statement of income and profit and loss is a financial statement which sets forth the financial operations of an organization comprehensively grouped about the divisions of organization and connecting the financial condition of the organization at two different dates.

A statement of affairs is a financial statement setting forth as an estimate the deficit and the amount which unsecured creditors would receive through enforced realization and liquidation and the relative positions of preferred and secured creditors.

A deficiency account is a financial statement which serves to explain the manner in which a deficit has occurred and to connect the deficit with the proprietorship as shown on the balance sheet.

A statement of realization and liquidation is a financial statement which shows through the realization of assets and the liquidation of the liabilities the reduction of net assets to cash.

A statement of cash receipts and disbursements is a financial statement of an organization which shows the actual cash received and the actual cash paid over any given period of time, together with the balances at the beginning and at the end of the period, respectively.

Of the above the balance sheet and income statement are most prominent. They appear in connection with a going concern, whereas a statement of affairs and deficiency account arise in connection with insolvency as a rule, while the statement of realization and liquidation shows the subsequent transactions of the receiver. The purpose of the balance sheet is to set forth the financial condition. The purpose of the statement of income is to set forth the story of operations. Each must be complete as to

content and arranged comprehensively if it is to be of use. In considering this point it may be well first to look for a moment at the parties at interest in an organization. These are, first, those who contribute the capital or finance the organization; second, those who manage the organization; and, third, those who develop relations with the organization as debtors and creditors. The classification of parties is apparently broad enough to cover any contingency, since the respective parties are connected with phases which are fundamental to organization. Under the head of contributors of capital we find sole proprietors, copartners, stockholders, members, and, in the case of municipalities, taxpayers. Each of these is interested in knowing that his funds have been not only advantageously employed, but that they are secure. Financial statements offer a means of satisfying the desire for such information. To the manager they offer in the same way a means of satisfactorily accounting for his stewardship, but they also furnish him with excellent facilities for getting in touch artificially with the divisions of his organization which size or other conditions prevent him from coming into personal contact with and thus transcending the limits of his personal observation. Through his financial statements he is offered an opportunity of extending his administrative functions to the most remote and insignificant portions of his plant. As to the outsiders, comparatively little can be said concerning debtors. The creditors, however, play an important part. Before trade creditors or banks will extend credit or make loans they must know that the concern is in good financial condition and what its prospective earning power is. Both these facts may be disclosed by balance sheets and statements of income.

In short, it would seem that financial statements which would convey the proper information to the administrative officers would be perfectly satisfactory to any one of the other parties at interest. There has been omitted from this classification of parties the government, and, while the government may be admitted as a party at interest, for some reason or other it appears that statements that are perfectly comprehensive and satisfactory to every one else are not, as a rule, satisfactory to the government. It seems to be customary for the government in the majority of cases to insist on financial statements in the form of reports which differ entirely from the usual run of financial statements and are

understood with difficulty by the parties who are required to prepare them. In many cases they do not appear to follow any known rules of accounting and the results obtained at times are little short of ridiculous. It is difficult to see just why balance sheets and statements of income and profit and loss which are ordinarily accepted as being clear and comprehensive are not received and used by the government.

A classified balance sheet would appear to meet the requirements of all interested parties. By classified balance sheet is meant one in which the assets and liabilities are classified. Assets are of several kinds, namely: capital, working and trading, current, miscellaneous and deferred. Liabilities follow very much the same order, namely: capital, current, miscellaneous and deferred. Such a classification would give to any one interested information concerning the assets and liabilities. It would also enable any one to compare any group of liabilities with any corresponding group of assets. As to the general arrangement, a great deal of discussion has been had. There are those who contend that the current assets should be shown first, arranging them in the order in which they will be realized; that the current liabilities should appear at the head of the statement on the other side, arranged in the order in which they will be liquidated. Others contend that capital assets and liabilities respectively should head the statement. Those who argue for preference for the current assets and liabilities seem to have principally in mind the interest of creditors, and they also seem to go on the assumption that the business is to be liquidated. Those who prefer the capital assets and liabilities seem to look at the situation from the standpoint of the proprietor or stockholder. With a little care in the arrangement it would seem that every one might be satisfied. If the capital assets and capital liabilities are placed at the top of their respective sides of the balance sheet the working and trading assets follow the capital assets, and these in turn are followed by the current assets; whereas the capital liabilities are followed by the current liabilities, then, subject to consideration of miscellaneous assets and liabilities and deferred charges to expense and credits to income, there may be seen at a glance not only how the capital has been invested and maintained but the relation of current liabilities to current assets. It is an easy matter to show the logical order of assets and liabilities with regard to realization

and liquidation in the case of a going concern, whereas it is much more difficult to attempt to state the order of realization and liquidation in case a concern is to be wound up. The following balance sheet, while far from exhaustive, will serve to illustrate in a general way the classification and arrangement suggested:

THE HARFORD COMPANY

GENERAL BALANCE SHEET, JULY 31, 1912

ASSETS		LIABILITIES AND CAPITAL	
Plant and Property, schedule No. 1	$140,828.70	First mortgage bonds:	
		Authorized	$200,000.00
		Less unissued	40,000.00
Investments, schedule No. 2	71,228.89	Issued and outstand'g	$160,000.00
		Loans payable, and int.	58,011.59
Treasury stock	5,000.00	Current liabilities:	
		Taxes accrued	$73.15
Patents, trademark and good-will, schedule No. 3	34,157.41	Salaries and wages accrued	7,832.08
		Accounts payable	8,264.40
Inventories, schedule No. 4	35,436.35	Notes and drafts payable, and interest	16,307.17
		Expenses accrued	500.00
		Dividend payable	1,297.50
Current assets:		Int. acc. on 1st mtge. bonds	800.00
Cash in hand and on dep., sched. No. 5	$42,757.84	Total current liabil.	$35,074.30
Accounts receivable	45,036.72	Reserves, sched. No. 7	3,221.61
Drafts and notes received and interest	9,343.72	Capital stock—pref'd:	
Due from subscribers to capital stock	197,280.00	Authorized	$500,000.00
		Less unissued	413,500.00
		Issued and outstdg.	$86,500.00
Total cur. assets	$294,418.28	Common:	
Sinking fund	400.00	Authorized	$500,000.00
		Less unissued	475,000.00
Deferred charges to expense, schedule No. 6	13,371.11	Issued and outstdg.	$25,000.00
		Total cap'l stock issued & outstand'g	$111,500.00
		Capital stock subsc'd	$219,200.00
		Profit and loss surplus	2,833.24
		Cap'l surp., donated stk.	5,000.00
Total assets	$594,840.74	Total liabil. & cap'l	$594,840.74

EXHIBIT "A"

SCHEDULES SUPPORTING GENERAL BALANCE SHEET, JULY 31, 1912

Plant and property—schedule No. 1:	
Land and buildings	$107,500.00
Additions to buildings	12,500.00
Plant equipment	13,200.00
Horses, wagons and motors	5,664.00
Furniture and fixtures	1,964.70
	$140,828.70
Investments—schedule No. 2:	
Securities owned	$64,900.00
J. M. Carlton, receiver	3,764.00
Retail department	2,564.89
	$71,228.89
Patents, trademarks and good-will—schedule No. 3:	
Patents and trademarks	$9,916.67
Good-will	24,240.74
	$34,157.41
Inventories—schedule No. 4:	
Stores department	$3,618.39
Manufacturing department	12,272.15
Finished goods manufacturing	12,986.91
Finished goods trading	5,892.21
Subdividing department	527.84
Shipping department	56.40
Boxmaking department	20.00
Coal-oil and waste	38.95
Stable and garage supplies	8.50
Postage	15.00
	$35,436.35

SCHEDULES SUPPORTING GENERAL BALANCE SHEET, JULY 31, 1912 (*Continued*)

Cash in hand and on dep.—schedule No. 5:	
Cash in bank	$40,871.33
Imprest cash	100.00
Expense funds	525.00
Freight deposit	31.51
Deutsche Bank	1,230.00
	$42,757.84
Deferred charges to expense—sched. No. 6:	
Discount on bonds	$9,958.34
Legal expense deferred	1,250.00
Organization expense	995.03
Insurance	926.00
Rent paid in advance	5.81
Advertising	208.00
Freight on consigned goods	27.93
	$13,371.11
Reserves—schedule No. 7:	
For depreciat'n, buildings and equipment	$1,340.75
For doubtful accounts	782.77
For containers	1,098.09
	$3,221.61

There are a number of controversial points which arise in connection with balance sheets. Prominent among these is the order which the current assets shall take. These should be

arranged in the order in which they will ordinarily be realized, namely: cash, accounts receivable, notes receivable. In the case of a going concern, if goods are not sold for cash they are sold on account. When the customer finds out that he cannot pay the account as promptly as he expected to he asks for a further extension of time and offers his note. It should be understood that the note is not any better security than the account. What the note does is to effect an agreement as to the items making up the account and thus render it unnecessary to prove the items in the account should litigation arise. It has often been argued that a note may be realized upon much more quickly than an account, since notes are frequently discounted. It may be remarked with equal truth and facility that accounts in some parts of the United States are in effect discounted. While both of these statements may be true, they are the exceptions to the rule that an account will ordinarily precede a note; however, it seems only logical to give preference, in the order of arrangement, to the accounts as representing the bulk of the credit.

Similar discussion may also be had with regard to current liabilities. As to the items of taxes and wages, there need be little argument, since the law makes both preferred claims, taxes and all claims to the government taking preference over wages. The same argument which was used in the case of accounts receivable and notes receivable may be used in the case of accounts payable and notes payable. Notes are not preferred over accounts, but rate with them in liquidation. They have no stronger claim on the business than have the accounts and, in view of the fact that in the history of the business transactions the accounts usually precede the notes, it is thought consistent to follow this arrangement in the balance sheet.

Good-will frequently comes up for discussion and the question which presents itself is whether it shall be included among the capital assets or as a miscellaneous asset. Its allocation depends entirely upon the circumstances surrounding its creation. If it is purchased in exchange for assets of the concern, it should be included as a capital asset. If it is raised by the concern without having been acquired in exchange for value which can be measured, it should be shown as a miscellaneous asset.

Another point worthy of discussion is the treatment of reserves. Many accountants follow the practice of deducting the

reserves from the respective assets, while others show them broad. The reason for deducting them is that it is argued that reserves are merely bookkeeping expedients for reducing the values of certain assets; that what an observer is interested in when he looks at the balance sheet is the net value of the asset; that it is a waste of time and source of annoyance for him to be obliged to find the reserve on the liabilities side and make the necessary deduction from the asset. This is, of course, a practical reason for the treatment just suggested. The adherents of the other theory, which holds that the reserve should be set up broad, seem to have more or less philosophy on which to base the practice. Their reasoning is as follows: Proprietorship is the excess of assets over liabilities. It is an equity in all the assets taken collectively. The proprietor shares with creditors the ownership of the assets. It would not be correct to assign certain of the assets to creditors and to say that the equity of the proprietor was vested in the remainder. A reserve is a portion of proprietorship set aside for a particular purpose. Proprietorship being an equity and reserves being a part of proprietorship they may not be deducted from any specific assets any more than proprietorship. The Interstate Commerce Commission makes a distinction between reserves for depreciation and reserves for other purposes, deducting the depreciation reserves from the assets and setting the others up broad. This would appear to be a good distinction. There is nothing in the idea that to deduct, or not to deduct, reserves has any bearing on the relations of the organization to fire insurance companies in the case of a fire loss.

Another interesting point presents itself in connection with sinking funds. As is well known, sinking fund cash may be used for the purpose of buying up bonds of the company before they mature, usually at a slight increase over par. The treatment of such purchases and the manner in which they are shown in the balance sheet takes one of two forms. One way is to show them broad. The other is to deduct them from the liability in a manner similar although on the opposite side to that in which reserves are deducted from assets. If such bonds when purchased are actually canceled then there would seem to be no question about the treatment to be accorded them. That is, they should be charged against the liability for bonds outstanding, thereby reducing it. In this way the reduced liability would appear in

the balance sheet without any question concerning it. If, however, the bonds were not actually canceled, as sometimes happens, they may either be carried on the balance sheet on the asset side as an investment, whereas the liability in full is shown on the opposite side; or they may be deducted from the liability side and the net account extended. The latter method would seem to be preferable, since the bonds at time of purchase are in the possession of the company or its agent and there can be no further liability to the public.

Whether investments or securities owned shall be classed as fixed or capital assets or as current assets is also a debatable point and will depend upon the purpose for which they are held. It is not probable that any one would think of considering shares of stock of a subsidiary concern held for purposes of control, or desirable affiliation, as a current asset. On the other hand, scarcely anything is more marketable, nor can anything be more readily converted into cash as a rule than securities. Since we look upon current assets as those which may be realized upon for the purpose of liquidating current liabilities it would not seem amiss to class securities as current assets. If the stocks were pledged as security for some capital liability it would seem further to complicate the situation. We might sum the matter up by concluding that when securities are held for purpose of control, affiliation, permanent investments of excess capital, or when pledged for capital liabilities, they are to be considered as fixed or capital assets, but when held as temporary investments of excess capital, until the time when the usual current assets will not be realized upon fast enough, or when pledged as security for current liabilities, they should be considered as current assets. As to advances to subsidiaries, if they are to be repaid in cash they are usually considered as current, whereas if they are to be repaid in securities they are considered as investments under fixed or capital assets, since the securities when received will constitute control or affiliation.

There very often arises in connection with the preparation of balance sheets the question as to whether or not consignments received and shipped shall be shown on the balance sheet and if so how. The best practice probably dictates the use of a memorandum or foot-note showing to what extent consigned goods are on hand. If consignments received are to be carried on the

balance sheet at all they should, it seems, be shown on the asset side as the very last item, whereas the corresponding accountability should appear in the same relative position on the liabilities side. It is not desirable that consignments should be shown as a part of the working and trading assets of the concern in order that the accounts payable on the other side include as a liability the corresponding amount. With regard to consignments shipped many accountants favor ignoring any reference to them in the balance sheet. It would seem that they might with propriety be shown therein as deferred credits to income, provided, however, that the corresponding amount which has been charged to accounts receivable is set forth separately so that there can be no question as to the value of the accounts receivable in so far as the consignments are concerned.

Notes receivable discounted are frequently the subject of heated discussion. One person may prefer to show them merely as a foot-note with the statement that a contingent liability exists in connection therewith in whatever the amount may be. Another practice consists in placing the contingent liability among the current liabilities on the theory that the notes are included in the current assets. Still another practice excludes the notes from the current assets and places them below among the miscellaneous assets, while the contingent liability offsetting them is shown among the miscellaneous liabilities. It is important that this matter should not be overlooked, since notes receivable discounted play an important part many times in the financial condition of a concern. It is probable, however, that the preferable practice is to make mention of them through the medium of a foot-note on the balance sheet.

Where the details of certain items appearing on the balance sheet are numerous and the detailed information is necessary to a comprehensive statement, it is customary to supply them in the form of supporting schedules. Such schedules appear most frequently as those which show the details of plant and equipment, securities owned, accounts receivable, notes receivable, capital stock outstanding, accounts payable, notes payable, etc. Schedules are also used in the case of co-partnership to show the adjustment of proprietorship as affected by additions and withdrawals of capital, interest, salary and division of profits, etc. The following illustration of this use may be of interest:

HEMMINGWAY & BLAUVELT

SCHEDULE SHOWING ADJUSTMENT OF PROPRIETORSHIP AS AFFECTED BY ENTRIES DURING THE SIX MONTHS ENDED DECEMBER 31, 1911

	Total	M. Hemmingway	M. Blauvelt
Proprietorship—July 1, 1911..	$53,900.00	$26,950.00	$26,950.00
Add:			
Interest on capital.......	$1,617.00	$808.50	$808.50
Salary of manager.......	2,500.00	2,500.00	
Total...........	$4,117.00	$3,308.50	$808.50
Total........................	$58,017.00	$30,258.50	$27,758.50
Deduct—drawings...........	16,000.00	6,000.00	10,000.00
Proprietorship, as adjusted....	$42,017.00	$24,258.50	$17,758.50
Add profits—six months ended Dec. 31, 1911..............	26,280.00	17,520.00	8,760.00
Proprietorship—Dec. 31, 1911.	$68,297.00	$41,778.50	$26,518.50

Consolidated balance sheets and income statements are used to show the combined financial condition and results of operations of two or more controlled or affiliated companies. They are usually prepared in cases of holding companies where it is desirable to consolidate the showing of the subsidiaries with those of the parent company, or when it is desired to know the combined financial condition and operations of a group of companies about to be consolidated.

The holding company maintains its control over subsidiaries through stock-ownership. The profits from the subsidiaries are taken up by the holding company through dividends on the capital stock. The stock is supplemented at times by bonds so that in such cases the income of the holding company is made up of both dividends on stocks owned and interest on bonds owned. As a rule the holding company has little other income.

There may be financial transactions between the holding company and its subsidiaries, such as advances and loans. The same transactions may also take place among subsidiaries as well as inter-company sales of materials and supplies, parts to complete and finished goods. The mere fact of the existence of such transactions is sufficient in itself to raise a considerable problem in preparing consolidated statements, but the problem is usually complicated by the further fact that such inter-company sales have been booked as sales so as to show a profit instead of being mere transfers at cost. It is much the same practice as that wherein one department of an organization turns over partly finished product to that which performs the next operation at the market price, allowing departments to show profits.

From the above it will be seen that before consolidated statements may be prepared considerable work must be done in reconciling the various accounts pro and con to the end that they will agree and offset one another when they are put together for elimination. The most common accounts which require such treatment are capital stock, bonds, advances, accounts, notes, interest, sales and consignments.

Let it be assumed that the New York Mfg. Company is a holding company owning the capital stock of the Bronx Mfg. Company in the amount of $100,000 and the capital stock of the Manhattan Mfg. Company in the amount of $500,000. The two latter companies as subsidiaries own and operate plants in the respective boroughs. Let it be further assumed that the cost to the holding company of the Bronx Mfg. Company stock was $95,000, and if the cost of the Manhattan Mfg. Company stock was $525,000, the stocks of the respective operating or subsidiary companies will be carried on the books of the holding company at $95,000 and $525,000, respectively. The earnings of the holding company will with respect to these investments appear in the form of dividends on the stocks. If the Bronx Mfg. Company pays an annual dividend of 10 per cent. and the Manhattan Mfg. Company an annual dividend of 12 per cent., the earnings will appear as dividends in the amounts of $10,000 and $60,000, respectively, except in the case of a consolidated balance sheet or consolidated statement of income and profit and loss. These will be the only transactions and entries appearing on the books of the holding company. If, however, the holding company has

other assets and liabilities and other income and expense, and it is desired to show the combined financial condition of the holding company as well as the subsidiaries and corresponding statements of income and profit and loss, then it will be necessary in preparing the statements to resort to certain eliminations. It will be a matter of combining the assets, liabilities, income and expense of all the companies. Since the investments in the subsidiary companies have been shown as capital stock and the specific assets and liabilities of the subsidiary companies are to be brought into play so as to show their true financial condition in place of the investments, it will be necessary to offset the capital stock shown as the asset on the books of the holding company against the accountability for said capital stock shown on the books of the subsidiary companies, and if perchance, as is the case here, the stocks have not been carried by the holding company at par, an adjustment of the combined surplus of the three companies will be necessary. In the case of the Bronx Mfg. Company, from the point of view of the consolidated balance sheet, the capital stock carried at $95,000 will have to be brought up to par and the consolidated surplus correspondingly increased in the amount of $5,000. The stock of the Bronx Mfg. Company carried as an asset by the New York Mfg. Company may then be offset against the accountability for capital stock outstanding shown by the Bronx Mfg. Company in the amount of $100,000. In a similar manner in preparing the consolidated balance sheet the stock of the Manhattan Mfg. Company carried as an asset by the New York Mfg. Company in the amount of $525,000 will have to be adjusted by charging the combined surplus with $25,000, so that the capital stock as an asset may be offset against the accountability for same on the books of the Manhattan Mfg. Company. The dividends shown as earnings by the holding company will have to be offset against the charges for dividends on the part of the subsidiary companies.

It seems scarcely necessary to go through the details incident to elimination in the case of the other items mentioned, since in each case the procedure consists in first bringing the items into agreement with respect to each of the two companies involved and then offsetting one against the other. It should be noted, of course, that eliminations may have to do not only with the accounts between one subsidiary and the holding company but that similar relations may exist among the various subsidiary com-

panies. Such items as bonds and advances will usually be found in cases where the holding company is involved in these particulars with one or more of the subsidiary companies. In the cases of accounts, notes, interest, sales and consignments, the necessity for elimination occurs probably with greater frequency. Inter-company sales where same have been recorded at the prices at which goods are sold to outsiders will have the effect not only of fictitiously increasing the volume of sales, but in cases where certain of such goods remain on hand at the time of taking inventories such goods will, unless the condition is corrected, appear in the consolidated balance sheet at an inflated value. It is customary to correct this erroneous statement of assets by making a deduction from the inventories. In cases where the profits are not entirely vested in the inventories the correction is made through the medium of a reserve. There is presented below a specimen consolidated balance sheet and a statement of income and profit and loss accompanied by working sheets showing the procedure incident to their preparation. It is not intended to make these statements exhaustive or even complete but rather to bring out the principles underlying their preparation:

WORKING SHEET FOR CONSOLIDATED BALANCE SHEET

	Total	Eliminations	New York Mfg. Co.	Bronx Mfg. Co.	Manhattan Mfg. Co.
Debits					
Plant and equipment	$545,000.00	....	....	$135,000.00	$410,000.00
Securities owned—Bronx Mfg. Co. (par $100,000)	....	$95,000.00	$95,000.00	....	....
Manhattan Mfg. Co. (par $500,000)	....	525,000.00	525,000.00	....	....
Stanton Mfg. Co. (par $200,000)	203,250.00	....	203,250.00	....	....
Black Mfg. Co. (par $10,000)	9,500.00	....	....	9,500.00	....
Bronx bonds (par $50,000)	....	50,000.00	50,000.00	....	....
Inventories	134,000.00	....	....	49,000.00	85,000.00
Cash	144,825.00	....	97,325.00	10,000.00	37,500.00
Accounts receivable	99,000.00	....	....	35,725.00	63,275.00
Advance to subsidiaries	....	20,000.00	20,000.00	....	....
Notes receivable	33,750.00	....	....	5,000.00	28,750.00
Deferred charges to expense	11,075.00	....	10,000.00	200.00	875.00
Total debits	$1,180,400.00	$690,000.00	$1,000,575.00	$244,425.00	$625,400.00
Credits					
Capital stock	$500,000.00	$600,000.00	$500,000.00	$100,000.00	$500,000.00
Bond and mortgage payable	250,000.00	50,000.00	250,000.00	50,000.00	....
Salaries and wages accrued	6,500.00	....	5,000.00	1,000.00	500.00
Taxes accrued	1,085.00	....	....	250.00	835.00
Accounts payable	51,575.00	20,000.00	6,575.00	*45,000.00	20,000.00
Notes payable	265,000.00	....	215,000.00	40,000.00	10,000.00
Surplus	83,955.00	42,285.00	24,000.00	8,175.00	94,065.00
Reserve for inter-company profits	22,285.00	†22,285.00	....	....	....
Total credits	$1,180,400.00	$690,000.00	$1,000.575.00	$244,425.00	$625,400.00

*Contains $20,000 advanced by holding company. †Red figure indicating deduction.

WORKING SHEET FOR CONSOLIDATED STATEMENT OF INCOME AND PROFIT AND LOSS

	Total	Eliminations	New York Mfg. Co.	Bronx Mfg. Co.	Manhattan Mfg. Co.
Sales	$485,875.00	$70,000.00	*$70,000.00	$125,000.00	$360,875.00
Cost of sales	185,000.00	....	....	60,000.00	125,000.00
Gross profit on sales	$300,875.00	$70,000.00	$70,000.00	$65,000.00	$235,875.00
Selling and administrative expense	153,500.00	....	†30,000.00	45,000.00	78,500.00
Income from operations	$147,375.00	$70,000.00	$40,000.00	$20,000.00	$157,375.00
Other income	23,940.00	....	22,500.00	1,000.00	440.00
Total income	$171,315.00	....	$62,500.00	$21,000.00	$157,815.00
Deductions from income	15,075.00	....	8,500.00	2,825.00	3,750.00
Net income, profit and loss	$156,240.00	$70,000.00	$54,000.00	$18,175.00	$154,065.00
Dividends	30,000.00	70,000.00	30,000.00	10,000.00	60,000.00
Profit and loss, surplus	$126,240.00	....	$24,000.00	$8,175.00	$94,065.00
Provision for inter-company profits and surplus adjustments	‡42,285.00	....	....	....	....
Surplus per balance sheet	$83,955.00	$42,285.00	$24,000.00	$8,175.00	$94,065.00

*Dividends received from subsidiaries. †Administrative expenses. ‡Surplus adjustments—Bronx Mfg. Co., credit $5,000; Manhattan Mfg. Co., debit $25,000; inter-company profits $22,285.

NEW YORK MANUFACTURING COMPANY

CONSOLIDATED BALANCE SHEET—DECEMBER 31, 1912

Assets		Liabilities and capital	
Plant and equipment	$545,000	Capital stock	$500,000
Securities owned	212,750	Bond and mortgage payable	$250,000
Inventories	134,000	Current liabilities:	
Current assets:		Taxes accrued	$1,085
Cash	$144,825	Salaries and wages accrued	6,500
Accounts receivable	99,000	Accounts payable	51,575
Notes receivable	33,750	Notes payable	265,000
Total current assets	$277,575	Total current liabilities	$324,160
Deferred charges to expense	$11,075	Reserve for inter-company profits	$22,285
		Surplus	$83,955
Total assets	$1,180,400	Total liabilities and capital	$1,180,400

NEW YORK MANUFACTURING COMPANY

CONSOLIDATED STATEMENT OF INCOME AND PROFIT AND LOSS FOR THE YEAR ENDED DECEMBER 31, 1912

Sales	$485,875
Cost of sales	185,000
Gross profit on sales	$300,875
Selling and administrative expense	153,500
Income from operations	$147,375
Other income	23,940
Total income	$171,315
Deductions from income	15,075
Net income—profit and loss	$156,240
Dividends	30,000
Profit and loss surplus	$126,240
Provision for inter-company profits and adjustments of surplus	42,285
Surplus—December 31, 1912	$83,955

The statement of income and profit and loss appears to be the work of evolution. Statements of this character apparently began with a simple profit and loss statement in account form in which the nominal accounts were classified with respect to debit and credit. This statement had the effect of connecting the balance sheet at the beginning of the period with that at the end, but it was far from comprehensive. It showed that a collection of credit items exceeded a similar collection of debit items and that the excess of credits over debits was equal to the difference between the proprietorship as shown by the first balance sheet and that of the second.

A demand apparently on the part of the proprietor for information which would be of more use to him brought out the trading and profit and loss account. This was, of course, used only in cases of concerns engaged in trading. For manufacturing and trading concerns there was a similar statement which included an added section for manufacturing preceding the trading section. Doubtless a remark to the effect that the trading and profit and loss account is now somewhat passé will be challenged with a great deal of vehemence. There are many who have used it for several years and have become so accustomed to its use that they blindly refuse to recognize any other form of statement. An unbiassed investigation of the relative merits of the trading and profit and loss account and the statement of income and profit and loss must, it would seem, find in favor of the latter. It would almost appear to be so far in advance of the trading and profit and loss account as not to permit of comparison.

The purpose of the statement of income and profit and loss is not merely to connect the proprietorship at two dates. While this is, of course, essential, its prime purpose is to group transactions of the period around the three main functional divisions of organization, so that such information will be of administrative value. It also aims to separate from the above mentioned transactions those incident to the acquisition, use and protection of capital and to classify the profit resulting not only with regard to its origin, but to show the income from operations separate and distinct from income from other sources. The statement takes the report form rather than the account form. It is thought that this makes it more easily understood by the business man, who often lacks a technical knowledge of bookkeeping and accounting.

If the layman were attempting to ascertain profits he would set down first, probably, his sales. From these he would deduct the cost of his sales. With just this same thing in mind the statement under consideration is begun by showing the gross sales. Realizing that returns decrease the gross sales they are, therefore, deducted. This deduction then shows the net sales. Sales returns are quite distinct from sales allowances. The latter may take the form of trade discount, rebates, allowances for breakage, damage, loss in transit, etc. These allowances may be supplemented by outward freight and cartage and together will constitute the deductions from sales, so designated because of the fact that there will in reality be, to the extent of the deductions, less income produced by the sales. A trading concern derives its income usually from two sources. The principal or primary source is sales. The secondary source is usually interest on surplus capital. It is, therefore, thought that the expression income from sales may be appropriately used to describe that earning which results after deductions from the net sales have been made. The first section in the statement may be said to constitute the sales. Following this there comes the cost of the goods sold, and it should be borne in mind that the construction of this group will depend upon whether the concern is engaged solely in trading or in manufacturing and trading. If engaged in trading solely, the problem is a very simple one and the section may show first the inventory at the beginning of the period, plus the purchases, less the inventory at the end of the period, with the cost of goods sold resulting; or it may show simply as one item the cost of the goods sold without showing how the amount is arrived at. If, however, the concern is engaged in manufacturing its own goods the situation changes considerably. Here it may be necessary to show the inventory of materials and supplies at the beginning of the period, the purchases, including inward freight, inward cartage and, in some cases, duty; the returns and allowances in connection with purchases, the inventory of materials and supplies at the end of the period, with the materials and supplies applicable to cost resulting. In addition to this there will be the manufacturing expenses, such as superintendence, heat, light and power, manufacturing supplies, factory office salaries and expenses, repairs and renewals, depreciation of machinery and tools, etc. The total at this point will of necessity be treated with the differences

of inventories of goods in process and finished goods respectively, in order to arrive at the cost of the goods sold. The total cost of sales resulting from the second section will be deducted from the income from sales, as shown in the first section, and the gross profit of sales resulting will be brought down. From this figure will be deducted that resulting from the third section, or selling expense, and the excess brought down will be selling profit. Selling profit is a somewhat new term and will not be as generally understood as gross profit. In fact, it is a sub-division of gross profit as found in the trading and profit and loss account. This latter account combined the selling expenses with the cost of goods sold and opposed the combined result against sales, showing the balance as gross profit on sales. It would appear that this gross profit might, with consistency, be further divided, and that, in short, is what has been attempted in the statement of income and profit and loss. It is thought that this further classification of profit has distinct advantages over the former classification, since it may be very important to know to what extent the gross profit on sales is reduced by selling expenses. Administrative expenses comprise the next section and are deducted in turn from the selling profit in order to ascertain the net profit on sales. This profit is, in fact, the income from operations, or the primary income, since it is the prime object of the concern to engage in the manufacture and sale of goods for the purpose of profit. With respect to the various classes of profit above described, it will add to the value of the statement if there is shown, with regard to gross profit, selling profit and net profit respectively, the percentage of cost.

The secondary income is usually added to the income from operations, in order to determine the gross income. From this figure there is then deducted the items which offset the other income and which are commonly known as deductions from income. The figure resulting then becomes net income, or profit and loss. With regard to these two sections, the statement will vary at times. The principal variation consists in combining other income and deductions from income into one section and either adding or deducting the net figure, as the case may be, to or from the income from operations. The result produced will, however, in each case be the same, the form of setting up the information varying.

At this point a question sometimes arises concerning certain items as to whether they shall be considered as income or deductions therefrom, or profit and loss debits and credits in accordance with their character. It is sometimes fairly difficult to decide whether a certain item is a profit and loss charge or a deduction from income. The controlling factor in deciding this point is whether or not the charge recurs with regularity and consistency and is connected with the income. It will usually be found upon investigation that most of these questionable items should be included as profit and loss charges and credits rather than items of income or deductions therefrom. To the "net income—profit and loss," there should be added any profit and loss credits applicable to the period. From the total of these there should then be deducted the profit and loss charges for the period. The balance will be the profit and loss for the period. It may be found necessary to adjust this figure on account of debits and credits occurring during the present period but affecting previous periods. Such adjustments are in truth adjustments of surplus, or proprietorship of a previous period, and will be added to or deducted from the profit and loss for the period after it has been combined with the previous surplus or proprietorship. The final result will be the proprietorship or surplus at the end of the period and should agree with the corresponding items on the balance sheet. In the case of corporations dividends will be shown in the last section and as a distribution of surplus.

The question has frequently arisen as to whether the profits for the period should be connected with the previous proprietorship on the statement of income or on the balance sheet. The answer to this is that it is very largely a matter of personal choice and there does not appear to be very much reason why one method is not as good as another. Tying the figures up on the balance sheet reveals the profits for the period without being obliged to refer to the statement of income in case one does not care to see how the figures are arrived at. On the other hand, tying them up on the income statement relieves the balance sheet of some detailed information which sometimes has the effect of making it appear complicated. The latter method is preferred by the writer, for the reason that it permits of as much adjustment as is desired without detracting at all from the appearance of the balance sheet. A specimen statement of income and profit and loss follows:

THE HARFORD COMPANY

STATEMENT OF INCOME AND PROFIT AND LOSS FOR THE MONTH ENDED JULY 31, 1912

Gross sales	$78,852.33
Less—Returns	65.97
Net sales	$78,786.36
Deductions from sales:	
Allowances	$83.68
Outward freight and cartage	328.28
Provision for reserve for containers	1,098.09
Total deductions from sales	$1,510.05
Income from sales	$77,276.31
Cost of goods sold—(Factory cost, manufacturing cost):	
Purchases—materials less transfers, returns and allowances	$28,686.39
Purchases—containers	894.78
Inward freight and cartage	989.36
Duty	1,882.34
Proportion stable and garage expense	53.21
Labor expense in stores	122.65
Total	$32,628.73
Deduct—Increase in inventory	1,743.00
Purchases applicable to cost	$30,885.73
Direct labor	20,650.07
Superintendence	450.00
Factory office salaries	400.48
Heat, light and power	320.69
Factory supplies	10.50

Factory expense		12.75
Alterations, repairs and renewals		22.75
Provision for depreciation of buildings and equipment		70.83
Factory office expense		18.75
Factory operating cost		$52,842.55
Add—Decrease in inventory—goods in process		15,571.06
Total manufacturing cost		$68,413.61
Subdividing department (expense)		6,703.64
Box-making department (expense)		279.40
Total factory cost		$75,396.65
Deduct increase in finished goods inventory		8,407.37
Total cost of goods sold		$66,989.28
Gross profit on manufactured goods sold		$10,287.03
Gross profit on trading goods sold		747.54
Total gross profit on sales		$11,034.57
Selling expenses—Salaries:		
Sales manager and clerks	$484.00	
Salesmen	750.00	
Commission	897.23	
		$2,131.23
Traveling expense		500.00
Advertising		832.00
Total selling expense		$3,463.23
Selling profit		$7,571.34
Administrative expense:		
Salaries of officers		$1,300.00
Salaries of general office clerks		306.67

Stationery and printing expense..........	8.50
Postage expense	16.38
Telephone and telegraph.................	18.75
General office expense..................	10.80
Legal expense	125.00
General expense	133.07
Total administrative expense...........	$1,919.17
Net profit on sales—income from operations..	$5,652.17
Other income:	
Income from retail department...........	$1,250.00
Income from securities..................	515.75
Commissions earned	3.37
Interest on bank balances...............	135.62
Interest on notes receivable............	13.69
Cash discount on purchases..............	2.33
Total other income.....................	$1,920.76
Total income	$7,572.93
Deductions from income:	
Interest on first mortgage bonds payable..	$800.00
Interest on bond and mortgage payable...	156.16
Interest on notes payable...............	30.77
Interest on loans payable...............	633.09
Cash discount on sales..................	500.08
Rent	40.00
Insurance	93.00
Taxes	6.35
Royalty expense	76.30
Total deductions from income.........	$2,335.75
Net income—profit and loss..............	$5,237.18
Profit and loss credits:	
Profit on sale of Michigan Central bonds..	$200.00
Forfeited subscription—L. Wimbleton....	250.00

Profit on exchange	41.34
Profit from purchase of Minturn Co. stock.	764.00
Total profit and loss credits............	$1,255.34
Total	$6,492.52
Profit and loss charges:	
Provision for depreciation—buildings and equipment	$358.33
Provision for doubtful accounts..........	775.34
Provision for depreciation—furniture and fixtures	6.24
Good-will—written off	1,010.03
Organization expense—written off........	16.91
Discount on bonds—written off..........	41.66
Patents—written off	83.33
Expense—traveling salesmen — underestimate by Austin, Bennett & Carlton.....	64.18
Error—interest on J. T. Lawson's note....	5.76
Total profit and loss charges...........	$2,361.78
Profit and loss—surplus for the period......	4,130.74
Dividend declared	$1,297.50
Profit and loss surplus—July 31, 1912.......	$2,833.24

EXHIBIT "B"

The statement of affairs may be called an estimated balance sheet, and it should be noted that the books are not adjusted thereto. Just as the balance sheet in the condition of solvency shows the financial condition, so the statement of affairs in the case of insolvency shows the estimated financial condition based on the assumption of enforced realization and liquidation. As the statement of income and profit and loss shows, in the case of solvency, how the profit or loss occurred, so the deficiency account, in the case of insolvency, explains how the estimated deficit is arrived at. The statement of affairs may be said to parallel the balance sheet. The deficiency account may be said to parallel the statement of income and profit and loss.

In preparing a statement of affairs it should be borne in mind that there are three parties interested in the preparation of the statement: first, those who have preferred or secured claims; second, those creditors who are unsecured; and, third, the proprietor. Preferred and secured creditors may be the least interested; the unsecured creditors probably the most interested. Another important matter in connection with the preparation of this statement is the point of view to be maintained. The statement is not made by the creditors, or from the point of view of the creditors, but by, or in behalf of, the proprietor, in order to show his relation to the creditors. It is, therefore, important that the point of view should be precisely the same as that which is taken in the preparation of the balance sheet. No authoritative form for this statement exists. The one most commonly used is probably the one which has been inherited from the English and Scotch accountants. This form, like the English balance sheet, shows the two sides in the transposed order from that used by Americans. It has been suggested that the reason for this transposed order in the case of the statement of affairs was that the statement represented or purported to show the relation of creditors to the proprietor rather than the opposite of this. This is not thought to be so, and the reason for the transposition is that it follows the English form of balance sheet. Showing it thus is not thought by Americans to be any more desirable than transposing the assets and liabilities on the balance sheet, and to do so only results in great confusion in view of the fact that there are numerous contras of equities, etc., to be deducted. By the time the American student has transposed the two sides of the balance sheet and carried equities back and forth once or twice he is so completely confused that it becomes almost impossible for him to prepare a correct statement. The writer favors placing the assets on the left and the liabilities on the right, arranging them respectively in the order in which it is estimated that they will be realized and liquidated. It should be kept in mind that in the case of sole proprietors and co-partners their personal estates become liable for business debts and such assets and liabilities should therefore be included in the statement of affairs, since business and personal creditors rate, under sole proprietorship, equally in the distribution of the assets. There is presented below a statement of affairs and a deficiency account:

CHAUNCEY, BENNETT & COOPER (A. M. DAWSON, RECEIVER)

STATEMENT OF AFFAIRS, JUNE 3, 1912

Assets and deficit		Nominal value	Estimated realization	Liabilities	Offsets	Estimated liquidation
Cash		$5,875.80	$5,875.80	Preferred claims (deducted per contra):		
Accts. receivable, customers'	$117,226.15			Wages	$20,121.15	
Less withd'ls by partners...	50,000.00	67,226.15	67,226.15	Creditors:		
Due from sub-contractors		1,520.37	1,200.00	Fully secured (liens—deducted per contra)	3,000.00	
Building material		18,435.73	15,275.00	Partly secured	None	
Notes receivable and interest		25,136.27	25,136.27	Unsecured		$284,060.47
Rent paid in advance		1,000.00	1,000.00			
Invested in contracts	$125,942.36					
Add estim'd cost to complete	9,057.64					
	$135,000.00					
Deduct lien (per contra)...	3,000.00	132,000.00	147,000.00			
Equipment	$80,972.50					
Less reserve for deprecia'n.	35,248.27	45,724.23	15,000.00			
Total assets			$277,713.22			
Deduct preferred claims (per contra)			20,121.15			
Net assets, subject to com. & exp. available for unsecured cred., being 90 + % of their claims			$257,592.07			
Deficit			26,468.40			
Total assets and deficit			$284,060.47	Total liabilities to unsecured creditors		$284,060.47

Deficiency Account

Adjustment of partners' accounts......	$50,000.00	Capital	$70,433.89
Loss on operations....	27,796.96	Balance	7,363.07
	$77,796.96		$77,796.96
Balance	$7,363.07		
Estimated losses on realization:			
Sub-contractors	320.37	Estimated profit on contract	$15,000.00
Building material....	3,160.73	Deficit	26,468.40
Equipment	30,624.23		
	$41,468.40		$41,468.40

The statement of realization and liquidation purports to show the reduction of the assets to cash. It is usually the statement which is made up to show the accounting of the receiver or trustee. Like the statement of affairs, there is no prescribed form. There has been in use for some time a realization and liquidation account, for which, however, it is difficult to find any authority. The form seems to have been the creation of some one in this country, and has been recognized to some extent by the various Boards of C. P. A. Examiners. It is not practicable, nor is it comprehensive. It seems to consist in making a number of debits and credits which will eventually balance one another and it does not show the reduction of the assets to cash and the disposition of such cash. A practical statement of realization and liquidation would seem to begin with all the assets and liabilities as shown by the books. A columnar arrangement, with the assets appearing above the liabilities, would seem to be preferable. In the next parallel column there should appear any new assets and any new liabilities not shown on the books. These, added to those shown by the books, will give the total with which to begin. In subsequent parallel columns there appear, in the order stated, the assets and liabilities not realized and not liquidated, assets and liabilities to be accounted for, loss and gain incident to realization and liquidation, and last, the assets and liabilities realized and liquidated. The following is a statement of realization and liquidation as above suggested:

THE MINTURN CHEMICAL COMPANY (J. M. CARLTON, RECEIVER)

STATEMENT OF REALIZATION AND LIQUIDATION FOR THE PERIOD FROM JULY 18 TO JULY 31, 1912

		As per books	Assets and liabilities not realized and liquidated	Assets and liabilities to be accounted for	Losses and gains incident to realization and liquidation		Assets realized and liabilities liquidated
Assets to be realized:							
Land	$2,000.00						
Buildings	23,000.00						
Plant equipment	10,000.00						
		$35,000.00		$35,000.00	$5,000.00		$30,000.00
Horses, wagons and harness		1,500.00		1,500.00	1,250.00		250.00
Furniture and fixtures		1,200.00	$25.00	1,175.00	737.75		437.25
Merchandise	$12,000.00						
Merchandise not on books	325.96						
		12,325.96		12,325.96	7,997.34		4,328.62
Goods in process		3,000.00		3,000.00		$2,232.76	5,232.76
Finished goods		18,000.00	500.00	17,500.00	13,000.00		4,500.00
Cash		345.00		345.00	50.00		295.00
Accounts receivable—Good		9,257.28	1,081.46	8,175.82			8,175.82
Accounts receivable—Doubtful		5,274.16	1,932.98	3,341.18			3,341.18
Accounts receivable—Uncollectable		1,795.56		1,795.56	1,570.40		225.16
Notes receivable		2,000.00		2,000.00			2,000.00
Accrued interest on notes receivable		20.00		20.00			20.00
Insurance unexpired		36.00		36.00	30.94		5.06
Total		$89,753.96	$3,539.44	$86,214.52			$58,810.85

Assets acquired during realization and liquidation:							
Accrued interest on notes receivable							10.00
Total							$58,820.85
Expense incurred during realization and liquidation:							
Taxes					255.21		
Wages					1,838.42		
Expenses of administration					1,200.00		
Interest on bond and mortgage payable					200.00		
Liabilities to be liquidated:							
Bond and mortgage payable		$20,000.00		$20,000.00			$20,000.00
Interest accrued on bond and mortgage		400.00		400.00			400.00
Wages accrued		1,200.00		1,200.00			1,200.00
Accounts payable	$43,964.00						
Accounts not on books	325.96						
		44,289.96	$21,978.74	22,311.22			22,311.22
Notes payable	$20,000.00						
Interest accrued on notes payable	100.00						
		20,100.00	11,055.00	9,045.00			9,045.00
Liabilities created during realization and liquidation:							
Taxes						255.21	
Wages							1,838.42
Expenses of administration							1,200.00
Interest accrued on bond and mortgage payable							200.00
Income earned during realization and liquidation:							
Interest on notes receivable						10.00	
Total		$85,989.96	$33,033.74	$52,956.22			$56,194.64
Balance		$3,764.00	$29,494.30	$33,258.30	$33,130.06	$2,497.97	$2,626.21

The statement of cash receipts and disbursements needs little description or explanation. It should preferably be in report form, in order to facilitate comparison. It should begin with the balance on hand at the beginning of the period, show in classified form the receipts, the total accountability, classified disbursements and balance on hand at the end of the period, as follows:

THE STANDARD TRADING COMPANY

STATEMENT OF RECEIPTS AND DISBURSEMENTS FOR THE MONTH ENDED DECEMBER 31, 1912

Balance November 30, 1912	$32,962.58
Receipts:	
Accounts receivable	$58,236.85
Cash sales	2,327.49
Notes receivable and interest	10,097.58
Sale of land	5,350.00
Rent of loft	250.00
Sales of scrap	25.00
Miscellaneous	12.37
Total receipts	$76,299.29
Total accountability	$109,261.87
Disbursements:	
Accounts payable	$39,472.13
Notes payable and interest	25,536.25
Rent	2,000.00
Salaries	2,538.50
Office expenses	1,547.32
Legal expenses	500.00
Miscellaneous	27.83
Total disbursements	$71,622.03
Balance—December 31, 1912	$37,639.84

For the sake of completeness a realization and liquidation account is presented herewith:

REALIZATION AND LIQUIDATION ACCOUNT

Assets to be realized:		
Plant and property	$35,000.00	
Horses, wagons and harness	1,500.00	
Furniture and fixtures	1,200.00	
Merchandise	12,325.96	
Goods in process	3,000.00	
Finished goods	18,000.00	
Accounts receivable	16,327.00	
Notes receivable and interest	2,020.00	
Insurance unexpired	36.00	
		$89,408.96
Liabilities liquidated:		
Bond and mortgage payable	$20,400.00	
Wages accrued	1,200.00	
Accounts payable	22,311.22	
Notes payable and interest	9,045.00	
		52,956.22
Liabilities not liquidated:		
Accounts payable	$21,978.74	
Notes payable and interest	11,055.00	
		33,033.74
		$175,398.92
Supplementary charges:		
Goods in process, inventory	$3,000.00	
Wages on goods in process	1,838.42	
Int. on bond and mtge. payable	200.00	
Expense of administration	1,200.00	
		$6,238.42
		$6,238.42

Liabilities to be liquidated:		
Bonds and mortgage and interest	$20,400.00	
Wages accrued	1,200.00	
Accounts payable	44,289.96	
Notes payable and interest	20,100.00	
		$85,989.96
Assets realized:		
Furniture and fixtures	$437.25	
Merchandise	4,328.62	
Notes receivable and interest	2,020.00	
Plant and property	30,000.00	
Horses, wagons and harness	250.00	
Accounts receivable	11,742.16	
Finished goods	4,500.00	
Insurance unexpired	5.06	
		53,283.09
Assets not realized:		
Furniture and fixtures	$25.00	
Finished goods	500.00	
Accounts receivable	3,014.44	
Goods in process	3,000.00	
		6,539.44
Loss on realization		29,586.43
		$175,398.92
Supplementary credits:		
Sales, goods in process	$5,232.76	
Interest on notes receivable	10.00	
		$5,242.76
Loss on operation		995.66
		$6,238.42

REFERENCES FOR COLLATERAL READING:
Accounting, Theory and Procedure. Dickinson. Chapter VIII.

CHAPTER XXXVIII

FINANCIAL STATEMENTS AS AIDS TO ADMINISTRATION

A financial statement fails miserably in its object unless someone examines it and uses it as the basis of a check-up. Many a wail of disappointment has been heard from accountants who have prepared statements which, in addition to being comprehensive and informative, were marvels of finish and beauty from an artistic point of view, because the recipient of the statements, after commenting favorably on their appearance, put them carefully away in his safe, never to remove them therefrom until the space should be needed for their successors.

This may have been the rule in the past; but if so, it is giving way to a policy on the part of business men which prompts them not only to read the statements with care, but to study them, to ask questions about them, and to act on the information elicited thereby.

The old order was the result largely of ignorance on the part of the business man, who felt secure as long as the books were in balance; of lack of vision on the part of the accountant, who had learned to prepare financial statements after more or less of a formula without giving thought as to the significance of the statements, and whose sense of duty was satisfied with their rendering.

The ideal situation is that wherein the business man and the accountant sit down together and discuss the conditions, relations, and operations which the statements reflect. One of the most successful business men of the present time not only does this, but refers to the statements daily and prepares his own balance sheet, because of the insight into the affairs of his business which the task gives him.

Statements to be effective and useful must be rendered promptly. Otherwise the status from which conclusions are drawn may have changed so as to make the conclusions worthless and the time devoted to study of the statements of little use. There are instances wherein certain circumstances seem to interfere with the prompt rendering of statements. Observations extending over a number of years and a variety of cases warrant the statement that there is no logical excuse for tardiness in this

respect. Failure may be traced as a rule to lack of organization, inefficiency in management, lack of ingenuity, or a combination of the three. It is absurd to hold up statements which are nine-tenths completed because the one-tenth part of the information is missing. Estimates based on experience usually suffice in cases of this kind. Foreign branches and affiliations frequently require such treatment, but the statements, being properly qualified, are read with such reservations in mind.

Statements should be properly tied up; meaning that where one statement relates to another the connection should be shown. This applies particularly to balance sheets and income statements wherein the surplus at the beginning of a period should be connected with the surplus for the period, and the total surplus resulting brought into agreement with respect to the two statements. Whether this reconciliation of surplus should appear on the balance sheet or on the income statement is the subject of some difference of opinion, and is treated differently by different accountants. It seems largely a matter of accounting technique which for practical purposes should doubtless be cast aside. There is this to be said, however, that while the situation may usually be brought out more easily on the income statement, there may be occasions where a balance sheet will be exhibited without the income statement. In this event there is but one avenue open, namely, to show the tie-up on the balance sheet. Instances of this kind wherein one statement is used without the other are becoming less and less common. A former idea was that in submitting a statement for credit purposes the banker would be satisfied with a condensed balance and did not care for a statement showing the operations. It was considered good practice to give the banker as little information as possible. The modern bank credit man, who is to banking what the mercantile credit man is to merchandising, has disabused the borrower's mind of this idea.

The statements should be made so clear that anyone with a fair amount of intelligence may understand them. The clearer they are made obviously the less interpretation is needed. Much progress along the lines of clarity has been made by the introduction into the statement of a certain amount of narrative. Credit for this sort of thing is probably due either the Corn Exchange Bank, New York, or the Charity Organization Society, New York. Which of the two may claim priority in the matter is not

known, but both have adopted the idea of explaining their statements in such a way that they may be understood by the layman. The bank appeals for deposits; the society, for funds with which to carry on its work.

One of the simplest and at the same time most effective schemes for bringing out situations is comparison. Probably no one expedient may be found which will, with so little trouble, bring out so much information as the comparison of items on both balance sheet and income statement with those of a preceding date and period. A balance sheet showing figures at two dates with comparison, will, even though unaccompanied by an income statement, throw a considerable amount of light on the employment of capital or the financing of the organization during the period intervening between the two dates. It will not, of course, show the details of operation and how gain or loss was occasioned, but it is surprising how much information may be read out of a comparative balance sheet. A comparative income statement throws light on the operations and serves more as an efficiency index. Much value is derived also from a comparison of monthly income and expense and cumulative figures to date with the corresponding figures of a budget. There is a decided tendency to-day in the direction of budgets. The federal government is perhaps somewhat responsible, but the tendency is noticeable in mercantile and industrial organizations as well as those of a social, civic, or philanthropic character. There is perhaps less occasion to compare current with previous periods where there is a budget, as this is usually compiled largely on the basis of income and expense for the preceding period, taking into consideration, however, current tendencies and probabilities.

Financial statements should be studied and understood by those to whom they are rendered. Directors, for example, have a duty to study and understand them. Where the directors allow the president of a company to pile up an indebtedness, even though he has rendered statements to them from time to time, which they did not understand or question, they have no escape from the responsibility which attaches to their position. It behooves directors, officers, or anyone charged with responsibility depending on financial statements, to become familiar with the conditions represented by the statements. The accountant has a duty not only to prepare statements which are correct and

represent facts, but to explain and interpret them for those whose action depends upon a proper understanding of the facts. Accountants have been particularly deficient in this phase of their work in the past. They have been content with developing a technique which often has been of no interest to the person for whom the statements were prepared, rather than interested in placing clear, understandable facts before such person.

The accountant is powerless, naturally, to force the responsible party to action on the basis of facts brought out by his statements. He may, however, exert a powerful influence over him directly as he makes matters clear for him. Many business failures are traceable to poor management. Back of poor management is, first, lack of facts from which to administer; and second, failure to act on information available.

Before attempting to discuss the significance of points presented in financial statements, it may be of help to consider briefly the parties who have an interest in such statements.

There are, first, the executives who are officially charged with the conduct of the business affairs on which the information in the statements has a direct bearing. Then follows the government, federal, state, county, or municipal, any claim of the government taking precedence over all other indebtedness. Thus it is of utmost importance that everything should be clear in case government agents are sent to investigate in connection with tax returns.

Next come those who loan capital to the organization on long terms and who are usually secured. Their inquiry is directed at whether or not interest is likely to be earned and paid, whether or not their priority rights are in any way threatened by new capital issues, and whether or not compliance is being had with sinking fund provisions.

Those who furnish credit for short periods follow in order, and to them the question of interest is, primarily, liquidity. In other words, is the margin of profit sufficiently great, the volume of business sufficiently large, and will the merchandise be converted into cash with sufficient rapidity so that they may receive payment for goods, services, or funds furnished, within the time specified for such payment when the credit was extended? The interest of merchandise creditors should, theoretically, be as keen as that of bankers who loan money. As a practical matter

it is not, because they do not have the same facilities for checking up the statements as have the bankers.

Last come those who contribute capital to the enterprise. They constitute the proprietary group. Whatever is left after others are satisfied belongs to them. Their interest is in safety of principal and reurn on investment.

While the purpose or objective of business enterprise is profit and, as a corollary, management should have a similar purpose, it must be said that one of the prime necessities of management is to maintain satisfactory relations with workers, creditors, government, and contributors of capital. It is incumbent upon the management to see that workers are paid promptly as well as adequately; that risks which creditors take are made and kept safe, and that creditors are paid in accordance with the terms under which the credit was granted; that tax reports and payments are made to the government at proper times; and that the return to those who comprise the proprietary group is as high as possible consistent with safety of principal and conservative financing.

As has been pointed out, different phases of financial conditions have various kinds and degrees of interest for different parties. One phase which is of general interest is the strength of the enterprise as denoted by the excess of assets over liabilities. This, ordinarily designated in a corporation as capital and surplus, has recently, on account of suggestions derived presumably from laws providing for capital stock without par value, been set up as one sum and without distinction being made between capital and surplus.

The admission must be made that any value in the assets in excess of the liabilities belongs to the shareholders. Once provision has been made for preferred shareholders out of such excess, the balance belongs to the common shareholders. Why then is it necessary to show such excess in more than one item? The answer is best found in the suggestion that something of historical interest and, as well, an idea of the company's operating strength, are lost if the excess is shown as one item.

A company may have excess assets indicating satisfactory financial strength, only to have investigation show that such excess is due largely to a revaluation of assets, whereas the paid-in capital has been impaired by operating losses. Granting that this

condition might not be exposed by separating the surplus from the paid-in capital, insistence on the latter treatment would seem to act as a deterrent to those who favor taking up increases in assets through revaluations. Conservatism and good accounting practice dictate that there shall be shown separately (a) capital contributed, or paid in; (b) surplus resulting from operations, or earned surplus; and (c) surplus resulting from revaluation of assets, or capital surplus.

There is not much doubt that any surplus may legally be declared away as dividends. In corporations having only common capital stock without par value, it is probable that any excess of assets over liabilities may in most states be so declared away, as long as the excess is not decreased below the amount of stated capital required by the charter or fixed by subsequent action of directors. What the directors may do legally and what they may do as a matter of sound business policy, are two different things. While they may be within their legal rights in insisting that increases representing the write-up in asset values shall be shown as general surplus, thereby giving the impression that such surplus has been earned, they are, from an accounting point of view, guilty of making a misleading statement. Corporations which are sound and have a healthy, earned surplus seldom take advantage of the legal technicality which permits the fiction that "surplus is surplus." It is usually when conditions are otherwise unfavorable that they avail themselves of the legal opportunity. There is nothing gained to the administration in a statement which is misleading. There is much damage which may result from the dissemination of information which is misleading.

Another point which is, or should be, of general interest, is the relation between capital which has been received as a contribution and that which has been borrowed; in other words, owned and borrowed capital. Stockholders and creditors may well view with alarm an increase in borrowed capital disproportionate to that of the owned capital. The ideal tendency is of course in the other direction. This aspiration, while worthy, may not be consistent with an ever-increasing volume of business which demands the reinvestment of a large portion of the profits in order to keep pace with the growth. The important point is that the matter should be carefully watched and proper balance maintained between the two kinds of capital.

In an attempt to devise a ratio which will bring out the relation at a glance, bank credit men have established what they call a "debt to net worth" ratio. This is found by dividing the total debt into the net worth. Such a ratio may show, for example, that the borrowed capital equals 25% or 50% of the owned capital.

The basis of the ratio is unsound, since the true relation may only be brought out by comparing each class of capital with the total capital. The debt to net worth ratio may be very misleading under certain conditions, but it has been quite generally accepted without proper investigation or consideration, on the strength of representations made in all sincerity by the bank men.

By way of illustration, assume that in a given enterprise there is a total capital of $500,000. Of this $100,000 is borrowed and $400,000 is owned. The borrowed capital is equal to 20% of the total capital; the owned capital, 80%. If sometime in the future the relations should change so that of the total capital, $300,000 would be borrowed, and $200,000 owned, the borrowed capital would then constitute 60% of the total, and the owned capital, 40%.

Using the "debt to net worth" method, the same figures will show first, that the borrowed capital is 25% of the owned capital, found by dividing $400,000 into $100,000. It will show under the second set of conditions that the borrowed capital would be equal to 150% of the owned capital. Comparing the two percentages, the span shows an increase from 25% to 150%, which indicates that the borrowed capital has increased six times. This sort of showing has a tendency to fill the hearts of the proprietors with fear, and perhaps rightfully so, since under the conditions set forth the borrowed capital would be out of reasonable relation to the owned capital. But the facts are, that the borrowed capital has only increased three times, or from $100,000 to $300,000, as would be shown by the percentages of borrowed capital to total capital, namely 20% and 60%.

It is possible that the bank credit men may have had some purpose in advocating the "debt to worth" ratio, since it makes the worst possible showing, by magnifying the increase, for concerns which are working on too much borrowed money. The chances are, however, that it is simply a false conclusion drawn from an attempt to obtain some means of showing quickly the relation of the two capital equities.

The current or liquid aspect of financial condition is concerned with the current assets and current liabilities. This aspect, while of vital importance to those who supply credit for short periods, has more or less interest for all parties related in any way to the organization, except debtors, since a condition wherein a concern is unable to meet current obligations may bring the business to a sudden halt and jeopardize the interest of everyone.

Credit men, bank and mercantile, have established the two to one relation between the current assets and current liabilities as being necessary for purposes of safety. This means that for every dollar of liabilities there must be two dollars of assets. They admit that this is an arbitrary ratio and is not based as yet on scientific investigations to determine its propriety. But like some other ratios, it has been accepted because it has been adopted by credit men and imposed as a requirement upon those who are obliged to seek credit, either of banks or mercantile establishments. Bank credit men have already seen the wisdom of giving the matter further investigation and consideration. They have already reached the conclusion that the ratio may properly vary in different lines of business and in different localities. The important point is that a safe margin shall at all times be maintained between current or liquid assets and current liabilities so that the liabilities as they fall due may be liquidated.

There is something to be said about the items which should properly be included in this group under each head. No one questions such items as cash, accounts receivable, notes receivable, raw materials, goods in process, and finished goods. The bank credit men do question such items as securities, advances to affiliated companies, accounts or notes receivable from officers or employes of the company.

The last two may generally be thrown out as being the subject of proper objection, although there are cases where this rule has resulted in some inconsistency. Securities are somewhat different. If the securities represent investments of a permanent nature they do not belong in current assets. When they represent temporary investments, or funds which for the time being only are idle, there is no reason apparently why they should not be placed in the group of current assets. The banker takes a position in this matter which, although somewhat arbitrary from an accounting point of view, has some basis of logic from the banker's standpoint. The

point which he makes is that if the prospective borrower has money to invest in securities he should not borrow but convert his investments into current funds. Thus if funds are in securities they are held not to be current funds.

Technically it appears that the decision should be based on the purpose and liquidity of the investment. If the investment is for ownership, control, or advantage through affiliation, for the purpose of return on the investment, or one for which there is little or no market, there is restriction placed on its conversion and it is in no sense current. On the other hand, if the investment consists of readily marketable securities which may be converted as quickly as need be for the purpose of obtaining current funds, there is no doubt about its inclusion as a current asset.

The banker takes a similar position with regard to advances. He contends that his function is to supply funds for temporary relief or assistance; not capital financing. Any loans on the strength of advances to affiliated companies make the banker a party to the financing of such companies. He therefore moves to strike out advances if they are included in the list of current assets.

Again the procedure is based on an arbitrary position taken by the banker quite properly from the point of view of proper functioning on his part. But from an accounting point of view the procedure is lacking in sound basis. Distinction should be made between advances which will be refunded with securities and those which are undergoing current realization. Where current funds will not be realized from advances to affiliated companies, but, instead, realization will take the form of securities, there is no justification for considering the asset a current one. If, however, the account is being realized currently, there appears to be no reason why, for current ratio purposes, they should not be treated like any other good account receivable.

With regard to current liabilities there is usually very little discussion, except where they are involved with capital liabilities which become payable serially. Following a more or less arbitrary rule for which the first New York Public Service Commission was probably responsible, there is some tendency in the direction of showing those installments of capital obligation which mature within one year from the date of a given balance as current liabilities. Except as it affects the current ratio, the question is

of little moment, since the important thing is to have the amount of the indebtedness becoming payable stand out on the balance sheet so that no one may look at that statement without realizing that the necessary cash must be provided before the time indicated by the maturity. Whether prominence is given among the capital liabilities to the fact of the maturity, or the part of the obligation maturing within the year is shown as a current liability, seems unimportant.

The protection of long term creditors is important, and any property which serves to secure their liens must of course be kept in proper condition. Thus property on which there is a mortgage must likewise be adequately insured, and the taxes kept paid up on such property as is taxable. While these facts are not as a rule stated in a balance sheet, they are proper questions to be asked; and such information might well be incorporated in the balance sheet if the statement is to answer any and all questions.

The fact of a mortgage may naturally raise the question of a sinking fund. If such item appears, the next point of information sought is whether or not payments to the sinking fund have been made in accordance with the terms of the mortgage indenture. The remark of a certain well-known accountant who said, "If you're going to tell anything, tell it all," applies to an item of this kind which is usually thought to be sufficiently described when the account has been given a name. A well defined tendency toward writing explanatory captions has a great deal of merit. Such a caption might in the case of a sinking fund be made to tell the whole story.

What the banker refers to as frozen credits has its analogy in a business organization when capital which should be kept available for current or working purposes becomes tied up in fixed assets. Many a previously prosperous concern has been wrecked because too much capital was allowed to get into plant, and funds could not be found with which to meet current obligations. It is therefore important that this matter be carefully watched. When directors see additions of any size or frequency to plant, it is proper that they should inquire as to the source of the capital. Plant property is essentially a capital asset and is acquired in the main through capital contributions or capital liabilities. Plant extension or improvement out of profits is a laudable ambition, but a procedure attended with some risk unless warranted by

collection efficiency which will produce the funds corresponding to the profits as appropriated and make them available for conversion into plant. Even though this may be made possible, there is always the question of maintaining proper relations between the fixed and the liquid assets.

Of the deferred charges to expense, little may be said. They are rather generally ignored when anyone attempts to get at the conservative financial condition. They have their place as equalizers among periods, but they receive little courtesy or consideration from the hard-headed seeker after true values. Bankers disregard them with a contempt marvelous in conception and effective in execution. In other words, they do not even look at them. And yet the accountant goes on setting them up and taking them seriously, whether they amount to tens or thousands. Such is the precision of accounting which attempts to tell the whole story, leaving to the reader to decide which parts or how much he will read.

One class of items frequently omitted from balance sheets is that of contingent liabilities. These items are usually difficult to show except as footnotes, and frequently do not receive the consideration to which they are, on account of their importance, entitled. The class embraces a variety of items, some of the principal ones being notes, trade and bank acceptances discounted, endorsements of notes for affiliated companies, accommodation endorsements, guarantee of bond interest or dividends for other companies, assignment of accounts receivable, contracts for the sale or purchase of merchandise, litigation pending, etc.

There also arise occasionally instances wherein there are liabilities accruing in the future but not existent at the date of the balance sheet. Such for example is a case where a substantial donor to an educational organization was to receive annually in monthly payments during the remainder of her life a sum equal to 6% on the sum contributed. This liability was more than a contingency. It was a certainty, but so long as paid up monthly never constituted a real liability at the date of any balance sheet. Such cases may be shown either as contras or as footnotes. The important point is that attention is drawn to them in the balance sheet.

From the balance sheet the principal matters which are watched are the financial strength, the relation between borrowed

and owned capital, the liquid condition, the financial status of long term creditors, and the relation between fixed and liquid assets. These are matters of interest to all parties concerned.

The assistance obtained from the income statement is largely of use to the operating officials or those officers of administration who are responsible for the profit-making. It is true that a study of income statements will give an idea as to the outlook, and bankers particularly insist on seeing how the profits have been derived; but operating officials, more than any other class, draw on the detailed statement of income and profit and loss for guidance in directing the profit-seeking activities of an organization.

Stress is laid on comparison, and in a way comparison means more in the income statement than in the balance sheet. It has been said that it means so much more that it means much less; the anomaly being due to the fact that there are more variables which may affect the comparison of items in the income statement than in the balance sheet. For example, an increase, on the balance sheet, in wages accrued, may mean more employes, higher wages to the same number of employes, a greater number of elapsed days between the end of the pay period and the date of the balance sheet, or failure to pay employes when wages were due. The first three instances would under normal conditions produce an increase which would be insignificant, so that any substantial increase might be safely attributed (but never taken for granted where there is opportunity to inquire) to slow pay. On the other hand, an increase in the manufacturing cost, which might be shown in an income statement, could be traced perhaps to any one of such causes as increased material cost, increased labor cost, increased overhead expense, decreased production, decreased recovery value of by-product, increased defective work, etc. An exhaustive study of the significance of comparisons, taking the income statement item by item, would no doubt produce most interesting results, but would involve a tremendous amount of investigation.

Any discussion of financial statements as aids to administration would not be complete without reference at least to ratios, which have become quite the vogue within the past few years. The impetus for this is found largely in the research work which has been done by the Robert Morris Association, an organization of bank credit men. Numerous ratios have been evolved and worked

up into a composite or barometric, the purpose of which is to measure or test the risk attaching to borrowers who make applications for bank loans and lines of credit.

The work which this association has done is exceedingly meritorious, and those who are responsible are entitled to a great deal of credit. It is work which accountants should have done long since, and it therefore little becomes them to offer any criticism. Hence what follows should not be regarded as criticism, but rather as cold-blooded discussion based on certain ratios which are included in the group evolved by the bank credit men. This group includes: receivables to merchandise, worth to fixed assets, sales to receivables, sales to merchandise, sales to worth, debt (both current and funded) to worth, sales to fixed assets.

It is obviously possible to show the percentage relation of any two figures, regardless of whether they are taken from the balance sheet or income statement, or both, and whether or not the figures have any business relation or the result any significance. And it appears that some of the ratios before mentioned fall into the latter class. There is definite relation between merchandise and sales, sales and receivables, net worth and fixed assets, debt and net worth. There is apparently no relation between receivables and merchandise, sales and worth, sales and fixed assets. Hence it is difficult to see how ratios developed out of such figures may serve as basis for conclusions.

The ratio, for example, of receivables to merchandise is devoid apparently of any logical reason for existence. It does show, of course, the percentage relation of the two sets of figures. Subsequent ratios may show increases or decreases, when compared with the first ratio. But even so, what does it signify? Someone has argued that it shows in a way the freshness or quality of the receivables; and, again, that it brings out a bearing which should be taken into consideration in looking at the current ratio. It is true, of course, that the element of profit included in the receivables figure without any corresponding liability has an effect on the current ratio. The higher the receivables, the greater the amount of profit involved, and the greater the effect on the current ratio. But any change in the situation is a simple change, disclosed better by a comparison of receivables than by a comparison of ratios resulting from dividing the receivables into the merchandise.

With regard to quality this ratio appears to show nothing. Quality is shown by dividing the average monthly sales into the receivables and does not require a ratio for the purpose. Or quality may be shown through comparative ratios: one, that of sales to receivables; the other, based on the terms of credit. For example, if the credit term is sixty days, at any time not more than 17% of the amount corresponding to sales should remain uncollected. As the ratio of the sales to receivables compares with 17%, so is the freshness or the quality of the receivables indicated. While quality is essential to a composite measurement of credit risk, it seems to be covered in the sales to receivables ratio.

Any attempt to get at turnover of capital through a ratio of sales to worth fails because only a portion of the free or owned capital is invested in goods which are the subject of sale. Strictly speaking, only that capital which is invested in goods should be used for such calculation. It, therefore, seems more accurate to use for turnover purposes the average investment in goods and the cost of sales, dividing the former into the latter in order to ascertain the number of times capital invested in stock in trade has been turned over. This method excludes the element of profit and produces a result which is at once clear and susceptible of only one interpretation.

The idea of ratios is an excellent one and the information which they give when properly used is exceedingly valuable. Like many other good things they should not be overworked, and particularly when the results are without significance.

The future development of financial statements will probably see the major exhibits generously supplemented by supporting schedules of detail and statistics. The generalities of the main statements show indications and tendencies, but the specific information necessary to action is usually found in the underlying details. There is much opportunity for development and improvement in the art of interpreting financial statements.

APPENDIX

CAPITAL STOCK WITHOUT PAR VALUE

The original purpose back of the law providing for issue of stock without par value seems to have been to remove any expression or impression of a fixed value attaching to such shares; this for such benefit or effect as it might have in the affairs of corporations and their relations with those who contribute capital to corporate enterprises.

A note of paternalism is sounded by some writers who, in attempting to explain the reasons for the law, credit the law-makers with a desire to protect the investor who buys a share of stock at a fixed price of $100 and looks upon the disbursement as a loan to a corporation which amount he expects to be able to recover whenever he so desires.

Whether or not this somewhat laudable motive was in the mind of the law-framer may never be known, but the effect of the law is to stamp the transaction as a proprietary venture and so far as it concerns the investor to put him on notice to inquire as to the value of his share.

The law has a distinct advantage for directors who desire to be honest and straightforward since it relieves them of the necessity of becoming parties to a fiction which has often been misleading. This fiction has in the past been particularly true in cases involving patents, copyrights, good-will, contracts, mines, etc., where there is usually more or less difficulty in fixing the value of such acquisitions.

Under a law providing for common stock without par value, the situation and procedure appear immediately to be much simplified. The common shareholder, regardless of what he may have paid for his stock, becomes entitled to such proportion of the net assets, after deducting the value of any preferred shares outstanding, as the number of his shares bears to the total number of common shares outstanding. The aggregate value, or the equity of the common shareholders, is determined by the excess of assets over liabilities and preferred shares. The value per share obviously is determined by dividing the number of common shares outstanding into such excess.

As profits are derived from operation, or assets otherwise

increase in value, without increase in liabilities or preferred capital, so, subject to distribution of dividends to either preferred or common shareholders, the equity and corresponding value of the common shares increase. When losses are sustained, there are shrinkages of asset values, or increases in liabilities without corresponding increases in assets, the value of the common shares diminishes.

The prospective purchaser of common shares is, therefore, charged with investigation and his attention is naturally directed to the balance sheet which is presumed to supply the information necessary to enable him to ascertain the value of the shares. While it may be true that the market price of the shares is indicative of their value, this obviously may not be taken as a true index thereof since there are many outside influences bearing on the market quotations. For example, the net asset value per share of United States Rubber Company common stock, according to the published balance sheet of December 31, 1920, was $166.70; yet on the same date the common stock sold at 66⅞. This asset value was after the deduction of liberal reserves, including dividends payable a month later, and would undoubtedly have a strong bearing on the consideration of the stock by a prospective speculative investor, although ignored by a purchaser who might desire the stock for use as collateral.

The argument may be advanced that it is frequently difficult to obtain balance sheets sufficiently recent to be of practical value in this respect and that brokers are not interested in supplying such statements for the convenience of prospective purchasers. It nevertheless appears that if the buyer of stocks is to exercise intelligent judgment in so doing, he will naturally turn to the balance sheet as a means of information regarding the asset value of the stock. Increasing demand of such character cannot but help, it seems, to exert an influence on corporations which will tend to make them bring out their balance sheets more frequently than at present. This should be especially true of those which depend or pride themselves upon a wide distribution of stock in the hands of the general public.

The effect of non-par value common stock laws upon the policies of directors should be wholesome in many respects. Because previous laws made shares of stock which were issued for less than their par value partially paid and therefore assessable

for the difference, it was quite customary for companies acquiring patents, copyrights, good-will, etc., to fix the value of such acquisitions at the par value of the stock issued in exchange therefor. This, while entirely legal, provided the directors declared that the value fixed was in their judgment correct and there was no fraud involved, led to what amounted to an admission, sometimes almost in the same breath, that the assets were not worth what they were declared to be worth by accepting from the recipients of the stock a donation of a large block thereof, for the purpose of providing working capital. After going through such legal formality, the stock could be sold at any price or if desired given away. In many instances, it was given away as a bonus to induce the purchase of preferred shares.

This resulted in a long and involved series of entries setting up the assets acquired and the stock outstanding at fictitious values; creating a treasury stock account at an inflated value, with an off-setting account, in order to keep the books in balance, designated by some such title as "Stock donation account." This was followed by certain adjusting entries as the stock was sold, writing off the discount from the par value against the stock donation account and finally transferring the balance to a surplus account.

Much annoyance and controversy was occasioned by this disposition of the balance in the stock donation account. Some contended that it should be closed into a restricted surplus account and made a part of the invested capital. Others insisted, and with the support of court decisions, it must be admitted, that it should become a part of the free surplus, thus being susceptible to distribution as dividends. The former disposition undoubtedly carried out the intention of the stock donors. The latter just as surely defeated the purpose for which the donation was intended.

The present non-par value laws, generally speaking, make it possible for the directors to act in a manner which is at once clean-cut and frank. Twenty-three states have passed laws providing for the issue of common stock without par value. Most of the laws provide that the stock may be issued for such consideration as is fixed by the directors acting under authority of the certificate of incorporation or power conferred upon them by the stockholders.

The Illinois law is an exception to this rule in that non-par

value stock may not be issued for less than five dollars a share. In the Maine law there is apparently a conflict; one section authorizing the stock to be issued for such consideration as the certificate, etc., may provide; another section stipulating that the non-par stock must have a value of at least five dollars a share.

The New York law previously placed a minimum limitation of five dollars per share on non-par stock, but in the latest amendment, effective May 11, 1921, an alternative proviso is included so that by making the necessary statement in the certificate of incorporation, the limitation as to the value of the non-par stock is removed and the stock may be issued for such consideration as may be fixed by the directors.

Under the present laws, except in those states where a minimum value is required to be placed on the non-par stock, the issue of such stock for patents, trade-marks, and like acquisitions is much simplified and the facts are clearly reflected in the accounting. The true value, or at least the value which represents the best judgment of the directors is assigned to the asset acquired. This amount represents the value of the common stock issued in exchange for the asset and is the amount which is credited to the common capital stock account. Should any of such common shares then be donated by the recipient thereof, no money entry is required; a memorandum entry in a treasury stock account showing the number of shares, without value attaching, being sufficient. Upon the subsequent sale of any of this stock, cash in the amount of the proceeds would be debited and the common capital stock account credited. Thus are the facts recorded and the troublesome entries in the stock donation account made unnecessary. There is also avoided any question of disposition of the balance in the stock donation account as to whether it should be transferred to the free or the restricted surplus. The value of the common stock is represented by the value of the patents or other intangible assets acquired, plus the cash received.

Several states, for example, New York, New Jersey, Pennsylvania, Massachusetts, and Illinois, among others, have complicated the situation with regard to stock without par value by providing that both preferred and common shares may be issued. Some states also authorize a division of the common stock into two or

more classes. The purpose of the latter provision seems solely to differentiate stockholders as to voting power.

Where there are both preferred and common shares without par value, the former may carry a preference either as to dividends or assets, or both. Where preferred as to assets, the amount of such preference must be expressed in the certificate and presumably may not be greater than the amount paid in for the preferred stock.

Under the New Jersey law, the total number of preferred shares both with and without par value issued and outstanding may never exceed two-thirds of the entire number of shares of all classes issued and outstanding. Any preferred stock without par value may be redeemed after three years from date of issue at the price which the corporation received for the stock when issued.

A share of preferred stock without par value is represented by a certificate setting forth that the party whose name appears thereon has contributed a certain amount expressed therein to the capital fund of the corporation issuing the certificate and is entitled to the return of the sum specified before any capital funds are returned to common shareholders.

The only advantage of preferred stock without par value seems to be that of making it possible to sell such stock at any price upon which the directors may agree and still have such stock full-paid and non-assessable.

The provision has the disadvantage of raising certain questions in the mind of anyone familiar with the theory underlying common stock without par value as to the rights of the respective classes of shareholders, and lays the foundation for involved controversy, if not litigation. For example, granting that in liquidation the rights of the preferred shareholders rank ahead of those of the common shareholders, what would be the preferences, as among them, of preferred shareholders who had purchased shares at $60, $70 and $80 respectively?

The certificate of the common shareholder differs in substance in that it entitles him upon distribution, and regardless of what he may have paid for his stock, to an aliquot part, according to the number of shares outstanding at such time, of the net assets over and above all debts and stock preferences.

While the common shares may have been sold at various prices, the respective holders are all placed on the same footing

in the matter of distribution of assets. Thus is the apportionment to them made easy whereas the distribution to preferred shareholders, where stock has been sold at different prices, would appear to be attended with considerable difficulty. The provision for non-par value preferred stock is so comparatively recent that actual cases have, so far as is known, yet to be settled. The possibilities of difficulty in fixing the order and amount of payment to such shareholders, however, are easy to foresee.

Another interesting point involved in the question of stock without par value is the stated capital. In this connection, it is perhaps pertinent to consider the purpose of the provision in the law such as has been made in the case of Maine, and as an alternative provision in New York.

Stated capital does not mean the capital with which the corporation will begin business, such as $500 or $1,000, but the capital with which the corporation will carry on business. The Maine law, for example, requires that the certificate of incorporation shall state—"the amount of capital with which the corporation will carry on business, which amount shall not be less than the amount of the preferred stock, if any, authorized to be issued with a preference as to principal, and in addition thereto a sum equivalent to five dollars, or to some multiple of five dollars, for every share authorized to be issued other than the preferred stock; but in no event shall the amount of such capital be less than one thousand dollars."

The provision of the New York law is substantially the same except that instead of stock "authorized" the law reads "stock issued and outstanding"; there is no minimum limitation as to the amount; and the original amount may be increased by "such additional amount as from time to time may by resolution of the board of directors of the corporation be transferred thereto."

The Maine law in respect to stated capital appears to present certain difficulties in that stock authorized may be very different in amount from stock issued and outstanding, and it would be impossible as a practical matter to carry on business with capital representing stock until such stock has been sold and the capital realized.

The purpose underlying the requirement as to stated capital is apparently two-fold; first, to distinguish from paid in, or contributed capital, that derived from operations; second, to

disclose to those from whom the corporation may seek credit, the fact that there is a margin over and above the liabilities, which is not subject to distribution as dividends, and upon which reliance may be placed for safety in granting credit.

Without the requirement of stated capital, the division between contributed and earned capital is lost as soon as any accretions are derived from operations. Where non-par common shares are involved any surplus automatically disappears through merger with the common capital since the common shareholders become entitled to whatever excess there may be of net assets over any preferences. Unless some legal provision is made for setting apart the contributed capital, the matter of distinguishing it from the earned surplus is apparently left to the pleasure of the directors or the accounting officials.

Good accounting naturally dictates that the surplus resulting from operations shall be kept and shown as an account and item separate from the contributed capital, but unless the law specifies that the capital with which the corporation will carry on business shall be stated, there appears to be no means of imposing this separation.

Merging the surplus from operations with contributed capital is dangerous in at least two respects. Capital contributed may be impaired, and the impairment concealed as to the balance sheet, when a deficit from operations exceeds the previous accumulation of surplus. Dividends may unwittingly be paid out of capital where the amount of the dividend declared exceeds the accumulation of surplus. The first is misleading; the second, illegal.

Where the question of a change in the form of stock incident to reorganization enters into the situation, some modification of the above views may be indicated. And the decision depends largely upon the meaning of reorganization. Where reorganization means merely a change in the form of capital stock from that with a par value to that without par value, there appears to be no reason for combining the surplus with the capital unless such procedure is made necessary by the statement of capital.

If a corporation with a capital of $100,000 represented by capital stock with par value and with a surplus of $150,000 were to change to capital stock without par value and announce that henceforth the corporation would carry on business with a stated capital of $200,000, it would seem only logical that $100,000

should be transferred from surplus to capital. But as long as the stated capital is not in excess of $100,000, the transfer of the surplus, or the combination of capital and surplus, seems an unnecessary step which only works a disadvantage in tying up the surplus.

If, however, reorganization means the creation of a new legal entity, there is some question regarding the propriety of not merging the surplus and capital of the predecessor corporation and having the combined amount appear as capital on the books of the successor corporation. The contention is frequently made, and with some basis of logic, that newly organized corporations, except certain classes where surplus has been paid in, can have no surplus prior to operations. It is also contended, following out this line of argument, that a corporation may not purchase surplus. In the case of merger, the surplus of the two corporations may be combined after all the capital stock of one corporation has been acquired by the other, but when purchasing or acquiring the stock the acquiring corporation is in reality acquiring the net assets. And it is contended by those who hold this view that the net assets are not divisible into the equities of capital and surplus. It is doubtful if such contention could be maintained, however, in one case where a corporation purchased the capital stock of another corporation, the balance sheet of the latter showing a surplus was copied into and made a part of the certificate of incorporation.

It is probably more conservative and better accounting generally, where a new corporation having common capital stock without par value takes over a predecessor corporation having capital stock with par value, to take the position that the net assets have been acquired and set up the capital of the new corporation in an amount equal to the value of the net assets, ignoring any question of surplus.

The act of changing from stock with par value to stock without par value raises a question with regard to the treatment of surplus. The treatment in turn depends upon the procedure by which the change is accomplished. One method of procedure consists merely in changing the form of stock. The other method consists in organizing a new corporation and introducing the new form of stock. It is not the intention to discuss here the relative advantages and disadvantages of the two methods; rather the effect of

the respective methods on the surplus. Both methods are somewhat carelessly referred to as reorganization. The word is a misnomer in the first instance, wherein no reorganization takes place. The only thing which happens in that case is a change in the form of capital stock. Reorganization may be said to take place only where a new corporation is organized to succeed a former corporation.

As illustrating a case wherein the capital stock is changed in form, assume that at a given date the Burrington Company (a New York corporation) had assets of $500,000, liabilities of $100,000, capital stock of $250,000 (2,500 shares of $100 each) and earned surplus of $150,000. It is then decided to change the form of stock from that with par value to that without par value.

The fact is obvious that no changes have occurred in the assets, the liabilities, the capital, or the surplus. The only possibility is that the situation may have been affected by the amended certificate of incorporation which would have to be filed. This document is referred to in the New York law as the "certificate of reorganization," although paragraph 24 following states that such proceedings shall not be "deemed to work a dissolution, or to create a new corporation or to interrupt in any way the continuity of existence of the corporation affected."

Irrespective of this misnomer the requirement of the statute imposes upon the corporation a necessity for showing in the certificate of reorganization the amount of capital with which the corporation will carry on business. This is known as the stated capital. The New York law with respect to this matter makes alternative provisions. The stated capital may be either an amount not less than five dollars a share for each share of stock without par value or the aggregate of the amounts received for the stock. Where the corporation has also an issue of stock with par value, such as preferred, the par value of such shares, issued and outstanding, must be included in the stated capital. The amount of stated capital may by resolution of the directors be increased but no provision seems to be made that it may be decreased.

Thus it appears in the case under consideration that it would lie within the power of the directors to fix the stated capital at almost any figure not in excess of $400,000. If the maximum amount were taken it would require that the surplus be trans-

ferred to the capital account and would no longer be available for dividends. Any dividend declared under such circumstances before further profits were earned obviously would be declared out of capital in violation of section 20, paragraph 2, of the New York Stock Corporation Law, as follows:

"No corporation shall declare any dividend which shall reduce the amount of its capital below the amount stated in the certificate as the amount of capital with which the corporation shall carry on business."

With such a barrier it would seem foolhardy for a corporation to take steps whereby it would be prevented from falling back on the surplus should occasion arise. The corporation is not required to close out its surplus to the capital account. There is nothing in the law which requires that the amount of capital shall be greater than it was before the change in the form of capital stock took place. Suggestions to designate the surplus as capital or special surplus seem inappropriate. There is apparently no reason why the surplus should not be left free and distributable if desired so long as distributions do not encroach on the stated capital.

Where reorganization means effecting a new corporation, at the same time changing the form of capital stock, the situation appears to be entirely different. The opinion of many accountants is that there is no question of surplus involved. A newly organized corporation ordinarily has no surplus.

Ordinarily a successor corporation acquires the net assets of the predecessor corporation. The value of the net assets automatically fixes the amount of capital of the successor corporation. The capital value per share is determined by dividing the number of shares without par value into the amount of capital.

It is possible, of course, under the New York law, for the stated capital to be fixed at an amount less than the value of the net assets acquired. If the stated capital were to be so fixed the difference between the net asset value and stated capital naturally would have to be designated as surplus. This in fact would be capital surplus or surplus arbitrarily taken from the capital. It does not seem feasible to trace it back to its origin in the predecessor company and determine whether it was derived from earnings or capital. By reason of the philosophy which regards

the net asset value of the old corporation as the capital of the new corporation, it must be considered as capital.

Under such circumstances there appears to be little doubt that the surplus should be properly ear-marked as capital surplus and not made available for dividends. The courts possibly would not uphold such position, yet good accounting practice demands such procedure. There is apparently no reason for setting up such a surplus account except to make the capital account coincide with the amount of stated capital set forth in the certificate. There is apparently nothing gained by so doing. It would probably be better to leave the whole amount representing the net asset value in the capital account, even though a balance sheet would show capital in excess of that stated in the certificate.

Experience in dealing with questions relating to stock without par value demonstrates the necessity of ascertaining the state in which the corporation is chartered and consulting the law of such state before attempting to give an answer to any question. Procedure which is entirely proper and legal in one state may be just the reverse in another. What may seem possible under one section of a given law may be proscribed by another.

A corporation organized under the laws of the State of Delaware and having only common stock without par value sold all of its stock except that issued for property at $20 a share, less certain commissions to the syndicate managers. Because the certificate of incorporation stipulated that no stock should be sold at less than $10 a share, the official in charge of the accounting caused $10 per share to be credited to the common capital account while the balance was credited to a capital surplus account.

The question which arose in this case at a later date was whether or not the corporation might pay a dividend out of the capital surplus, or out of the earned surplus to which the capital surplus had first been transferred.

At first glance it might appear entirely possible, without coming into conflict with the law, to use any surplus for purposes of dividends. The Delaware law places no restriction on the amount of capital. There is no statement required as to the amount of capital with which the corporation will carry on business. The Delaware law is extremely liberal as to corporations having shares without par value. About the only restriction imposed is

that the corporation may not commence business with less than ten shares.

But the law does say that "the directors . . . shall have power after reserving over and above its capital stock paid in, such sum, if any, as shall have been fixed by the stockholders, to declare a dividend among its stockholders of the whole of its accumulated profits, in excess of the amount, so reserved, and pay the same to such stockholders on demand; provided, that the corporation may, in its certificate of incorporation, or in its by-laws, give the directors power to fix the amount to be reserved."

The law further states that "No corporation created under the provisions of this chapter, nor the directors thereof, shall make dividends, except from surplus or net profits. Dividends may be paid in cash or capital stock at par, or in the case of stock without par value, dividends in capital stock may be paid at a price fixed by the board of directors, but otherwise the corporation shall not divide, or in any way pay to the stockholders, or any of them, any part of its capital stock."

While the courts seem to have been liberal in defining surplus profits it is doubtful if in the instance above mentioned, any court would have construed any part of the money paid in for capital stock as surplus. In the case of Williams vs. Western Union Telegraph Company (93 N. Y., 162) the court defined surplus as being the excess of assets over liabilities and capital. But it seems doubtful if any court would regard the money received in exchange for capital stock as anything but capital.

The surplus created in the Delaware case was different from that which might arise from revaluation of assets. It was different from that which might be created where stock with par value is involved and the stock is sold at a premium. It appears that the action was nothing more than an arbitrary division of the capital resulting from the sale of stock into two parts, one called capital, the other, surplus. It would therefore appear that a payment of dividends out of such surplus would be illegal.

Cases presenting complicated problems under the laws governing the issue of stock without par value are already arising with some frequency. The prospect for interesting litigation growing out of such cases is excellent. The law-makers, in endeavoring to remove existing opportunities for abuse, presumably thought to take a forward step when they introduced the first law bearing on

common stock without par value. They added immeasurable opportunity for involvement, probably unwittingly, when they went a step further and made similar provision for preferred stock.

Preferred stock without par value is already on the market. The certificates, in the case of one corporation, are numbered and show the number of shares which they represent, as usual. There is no reference to the amount for which they were exchanged when issued. How the purchaser of shares from any holder other than the issuing company can tell whether he is buying something worth ninety-five dollars or fifteen cents, is a problem. How a quotation is to be established is equally baffling. The company may know how much was received from the sales of such stock, but how is the subsequent purchaser to determine unless the paid-in value or the redemption value is endorsed on the stock certificates? And how is the transfer to be accomplished except the paid-in value or redeemable value is endorsed on the stock certificates? How, when shares of preferred stock are issued originally at different rates and afterward merged into a block covered by one certificate later to be sub-divided, is the recipient of part of the shares to know what is the value of his equity, unless the certificates carry values?

It is to be presumed that any corporation issuing shares of preferred stock without par value at different rates will either identify the various issues by serial letters, ear-mark the stock by endorsing upon it the amount received in exchange therefor, or place upon it a redeemable value.

One company has already issued preferred stock without par value, placed a value upon it of one hundred dollars per share, and agreed to redeem it at that figure. The question which naturally arises is, "Wherein then lies the advantage of having preferred stock without par value?" The answer probably is that such stock may be issued at any price which may please the company, without rendering the holders liable for assessment as would be the case were preferred stock with par value to be issued at some lower figure. In this case it seems apparent that the company recognized the necessity which in New York the statutes impose, of fixing a redeemable value for the preferred stock in order to establish the equity of the preferred shareholders. The New York law provides that "The certificates for preferred

shares shall state the amount, if any, which the holders of each of such preferred shares shall be entitled to receive on account of principal from the assets of the corporation in preference to the holders of other shares. . . ."

But assume that the company later needs more capital; common stock is not sufficiently attractive to find ready sale, and even preferred stock redeemable at one hundred will not bring more than eighty-five. How shall stock sold at less than the redeemable value be treated? The mere bookkeeping entries, assuming there is no question as to the redeemable value, appear simple enough, since presumably the amount received for the stock would be credited to a preferred capital account, with an amount equal to the difference between the value received and the redeemable value taken out of surplus, or out of common shareholders' equity, and set up as a credit to preferred shareholders' redemption account or one bearing a similar descriptive title.

The point of difficulty comes where the rights of the respective equities cross one another. If the redeemable value is placed upon the preferred stock with the sanction of the common shareholders, there appears to be no point at issue. If the action is taken by the directors without ratification by the common shareholders, there might be grave danger not only of conflict between the two equities, but legal action by the common shareholders for the protection of their equity. There is also a counter-question, in the absence of ratification, as to what extent dividends may be paid to common shareholders without first providing the redemption margin for the full protection of preferred shareholders out of surplus. These points obviously should not be overlooked by the accountant in undertaking to set up the proper accounts or to reflect through a financial statement the relations between the corporation and the shareholders.

Another company, having declared in advance a dividend on preferred stock payable in quarterly installments over the ensuing year, presents a question as to the disposition of the dividend charge, in the event that the profits for the corresponding year do not equal or exceed the amount of the dividend. There being in this case no surplus, separate and distinct from the common shareholders' equity, it is clear that any deficiency in profits necessary to meet the charge for the preferred dividend could be charged only against the common shareholders' equity. Again

there arises a question as to the right of the directors to take action without their consent which would reduce the equity of the common shareholders. The conflict here is between the directors and the common shareholders, rather than between the corporation and the state, since the stated capital is sufficiently under the combined preferred capital stock and common shareholders' equity so that the statute governing the payment of dividends in reduction of capital would not be violated.

The problems surrounding capital stock without par value are too varied to permit of general rules for their solution. It would therefore be ill-advised to attempt the formulation of rules to govern the accounting related thereto. On the other hand, it may be found helpful if a few classified thoughts, in summary form, are set down, to wit:

1. Ascertain the state in which the corporation is chartered and consult the laws thereof bearing on shares of stock without par value, particularly as to provisions of issue and dividends.

2. Determine amount of stated capital, if any, and take into consideration the significance thereof.

3. Credit amounts received or values arising from sales or issues of stock to an account entitled "Paid-in Capital," differentiating in case there is both preferred and common stock.

4. Credit net profits or charge net losses to surplus account. The idea that a corporation having stock without par value has no need for a surplus account is erroneous.

5. Credit appreciation of property, when based on sound values, to special surplus account. This suggestion is based purely on the theory of classification and a desire to maintain the regular surplus account as a summary of operating results unaffected by credits arising through revaluation, or other adjustments, and not because the special surplus is legally different in character for dividend purposes.

6. Declare cash dividends out of surplus from operations and apply charges for such declarations against such surplus until the latter has been exhausted. Dividends, presumably, may be declared out of any surplus, but may not encroach upon stated capital. Paid-in capital and stated capital are not necessarily synonymous, and it is probable that in cases where the paid-in capital exceeds the stated capital, the excess may in some states

be used for dividends. In certain states, however, the statutes are specific in prohibiting such use.

7. The wisdom of setting up a specific redemption account for the difference between the paid-in capital and the redeemable values in the case of preferred stock without par value is in question. At least a notation as to the redeemable value should be made at the head of both preferred and common accounts showing the paid-in values.

As to the balance sheet, there are several moot questions. The most notable one, probably, is that which concerns the manner in which the excess of assets over liabilities and preferred capital, if any, shall be shown. Other questions have to do with the manner of showing the preferred shareholders' equity where there are preferred shares without par, but with a redeemable value.

The first thought which usually arises in the mind with regard to the balance sheet is that the excess of assets over liabilities and preferred capital, if any, belongs to the common shareholders and represents their equity in the assets. On this ground it is frequently contended that there is no reason for showing the excess in question except in one sum described as common shareholders' equity. But objection to this arises from the fact that such procedure indicates in no way the derivation of the equity amount and may obscure material information bearing on the status and administrative policy of the company, or in fact conceal capital transactions in which the reader of the balance sheet is properly interested.

Showing the equity in one sum prevents the disclosure of (a) how much common capital was paid in; (b) how much represents accumulation of net earnings; (c) whether or not there have been encroachments on paid-in capital through dividends or losses; (d) whether or not any of the equity is represented by appreciation of assets; (e) whether or not any cash or stock dividends have been declared or paid during the period ended at the date of the balance sheet.

All of the above information is essential to proper consideration of the company's condition by shareholders, by bankers, or by any other interested parties, and, if shown, tends to promote confidence rather than excite suspicion, even though the showing may not be as favorable as might be desired.

As a concession to the wishes of clients the public accountant may find it necessary to condense the figures representing the phases of common proprietorship above mentioned, even to the extent of showing the common shareholders' equity in one amount. He should hold, however, for the distinction on the balance sheet between capital and surplus. If this is not acceptable, he should insist that the assets and liabilities as well as the preferred capital be so described as to bring out any important facts having a bearing on the values upon which the common shareholders' equity is based.

The question, in the case of preferred shares, of how the excess of redeemable value over paid-in value should be shown is somewhat perplexing. To take the excess out of surplus or out of common shareholders' equity and set it up as a credit in favor of preferred shareholders, is perhaps somewhat arbitrary. Such procedure might indicate a positiveness with regard to the legal relations between the common and the preferred shareholders not justified by the facts nor within the province of the accountant. If, however, the two groups of shareholders are agreed as to the rights of the preferred group, the legal obstacle is removed and there remains the question as to the method which will best express the situation. On this, opinion may be divided. There can be no question of definiteness if the amount involved is set up as a redemption reserve. On the other hand the same result would seem to be accomplished by making use of parenthetical descriptions.

An explanatory caption in connection with the preferred stock might answer the purpose as to that stock. It might fail in its purpose if the reader of the balance sheet were considering the common stock and failed to notice the qualification attaching to the preferred. It appears, therefore, that the procedure most satisfactory to all concerned will be found in qualifying both captions, somewhat as follows:

Preferred stock (50,000 shares without par value, redeemable at $100 each, and requiring in the event of redemption a payment of $750,000 in addition to the value shown herewith)		$4,250,000
Common shareholders' equity (subject to charge of $750,000 for redemption of preferred stock) 100,000 shares without par value:		
Paid-in capital	$6,250,000	
Surplus	1,750,000	$8,000,000

It appears important on account of the variation in laws of different states that any balance sheet involving shares of stock without par value should show the state in which the corporation was organized. It is also important that in any case where the laws of the state make a provision for stated capital the amount thereof should be shown on the balance sheet.

INDEX

THIS BOOK